HSBC Bank Canada

Annual Report and Accounts 2017

HSBC

Annual Report and Accounts 2017

Highlights

For the year ended 31 December 2017

- Profit before income tax expense was $895m, an increase of $180m or 25%, compared with 2016.
- Profit attributable to the common shareholder was $630m, an increase of $144m or 30%, compared with 2016.
- Return on average common equity[1] was 13.3% compared with 10.6% for 2016.
- The cost efficiency ratio[1] was 62.2% compared with 60.4% for 2016.
- Total assets were $96.4bn compared with $94.7bn for 2016.
- Common equity tier 1 capital ratio was 10.5%, the tier 1 ratio was 12.4% and the total capital ratio was 14.7% compared with 10.5%, 12.5% and 13.5% respectively at 31 December 2016.
- The HSBC Group took the top spot in *Euromoney*'s annual global trade finance survey for 2018. Locally, HSBC's investments in trade finance products and services in 2017 have positioned the bank for further growth in this area.

1 *For additional information, see the "Use of non-IFRS financial measures" section of the MD&A.*

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Message from the President and Chief Executive Officer

2017 was a strong year for both the Canadian economy and for HSBC Bank Canada. Canada is expected to have been the fastest growing of the G7 economies due largely to consumer spending supported by historically low interest rates and strong job growth.

For HSBC, Canada remains a priority growth market, attracting significant investments from the HSBC Group to drive growth and improve efficiency, and for risk and compliance initiatives. This has clearly had an impact. There is good momentum in all of our business lines and revenues improved in both of the last two quarters. Revenue in Commercial Banking is up 2% through increased commercial borrowing as we expanded in Eastern Canada and deepened product penetration. Global Banking and Markets had increased event fee revenue and double digit growth in the North American trade corridor. In Retail Banking and Wealth Management, the largest beneficiary of these investments, record growth in total relationship balances across core products resulted in a 5% increase in revenues from our on-going business. So, coming into 2018, I am pleased with how far we've come and am optimistic about the future.

Even as our earlier investments began to bear fruit, in 2017, we continued to make banking faster, easier and safer for our customers. For example, in Retail Banking and Wealth Management, we launched one of the best travel reward cards in the market today; introduced new features and pricing for HSBC InvestDirect; introduced no fee Interac e-transfers for all retail banking customers; updated our branches to make them more digital-friendly and increased hours at many of them.

In Commercial Banking, we have invested heavily to expand our presence, particularly in Eastern Canada, one of the faster growing parts of the country. We also invested in digital technologies, introduced receivables finance, and have made key hires in our international subsidiary banking and franchise banking teams. Along with our unique Global Trade and Receivables Finance, and Global Liquidity and Cash Management products, these enhancements in 2017 mean we are even better able to help our clients navigate today's evolving trade environment and take greater advantage of Canada's many trade agreements.

In Global Banking and Markets, we continued to provide tailored financial solutions to our large corporate clients with an increased emphasis on connecting them to more global opportunities via the HSBC Group's extensive network. In 2017, we also continued to bring global investment options to Canadians as joint lead book runner on all four U.S. corporate Maple bond transactions, and as underwriter of green bonds issued by the Ontario and Quebec governments, and the Export Development Corporation.

Just as HSBC invested to grow despite the economic uncertainty, Canadian businesses should be taking a hard look at where their growth is going to come from in the future. Expanding trade and investment beyond our traditional trade partners is essential for the Canadian economy to grow and for Canadians to prosper. With our long history and deep experience in global trade and investment, we're here to help our customers navigate so that together we thrive.

All of us at HSBC Bank Canada were also very proud and grateful to have our efforts recognized in a number of ways in 2017: we were named one of Canada's Best Corporate Citizens for the 6th consecutive year by *Corporate Knights*, and recognized for service excellence at HSBC InvestDirect also for the 6th year in a row. We were also recognized by *Corporate Knights* as their inaugural Top Performer on Gender Diversity in the Financial Services sector and received our second Employment Equity Achievement Award from the Government of Canada. And *Euromoney* named HSBC the World's Best Bank, World's Best Trade Bank and Best Transaction Bank in North America. All of this of course just makes us want to do more for our customers and our community!

If it feels like that was a lot of change for one year, it was, and we appreciate the hard work and resilience of our colleagues, and the support of our customers. We will continue to adapt and innovate to meet our customers' needs and earn their business in 2018.

By keeping our customers at the heart of everything we do, informed by our experiences in other markets and supported by our colleagues around the world, I'm confident that we will continue to change to meet our customers' evolving expectations.

Yours in anticipation of another exciting year,

Sandra Stuart
President and Chief Executive Officer
HSBC Bank Canada

Vancouver, Canada
15 February 2018

HSBC Bank Canada ('the bank', 'we', 'our') is an indirectly wholly-owned subsidiary of HSBC Holdings plc ('HSBC Holdings'). Throughout Management's Discussion and Analysis ('MD&A'), the HSBC Holdings Group is defined as the 'HSBC Group' or the 'Group'.

The MD&A is provided to enable readers to assess our financial condition and results of operations for the year ended 31 December 2017, compared to the preceding year. The MD&A should be read in conjunction with our 2017 consolidated financial statements and related notes. The MD&A is dated 15 February 2018, the date that our consolidated financial statements and MD&A for the year ended 31 December 2017 were approved by our Board of Directors ('the Board').

The bank has prepared its consolidated financial statements in accordance with International Financial Reporting Standards ('IFRS') and in consideration of the accounting guidelines as issued by the Office of the Superintendent of Financial Institutions Canada ('OSFI'), as required under Section 308(4) of the *Bank Act*. The abbreviations '$m' and '$bn' represent millions and billions of Canadian dollars, respectively. All tabular amounts are in millions of dollars except where otherwise stated.

The references to 'notes' throughout this MD&A refer to notes on the consolidated financial statements for the year ended 31 December 2017.

Our continuous disclosure materials, including interim and annual filings are available through a link on the bank's website at www.hsbc.ca. These documents and the 2017 Annual Information Form are also available on the Canadian Securities Administrators' website at www.sedar.com.

Complete financial, operational and investor information for HSBC Holdings and the HSBC Group, including HSBC Bank Canada, can be obtained from its website, www.hsbc.com, including copies of HSBC Holdings 2017 Annual Report and Accounts. Information contained in or otherwise accessible through the websites mentioned does not form part of this report.

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Management's Discussion and Analysis (continued)

Caution regarding forward-looking statements

This document contains forward-looking information, including statements regarding the business and anticipated actions of the bank. These statements can be identified by the fact that they do not pertain strictly to historical or current facts. Forward-looking statements often include words such as 'anticipates,' 'estimates,' 'expects,' 'projects,' 'intends,' 'plans,' 'believes' and words and terms of similar substance in connection with discussions of future operating or financial performance. Examples of forward-looking statements in this document include, but are not limited, to statements made in 'Message from the President and Chief Executive Officer' on page 2, 'Our strategic priorities' on page 5, 'Economic review and outlook' on page 28, and 'Employee compensation and benefits' on page 89. By their very nature, these statements require us to make a number of assumptions and are subject to a number of inherent risks and uncertainties that may cause actual results to differ materially from those contemplated by the forward-looking statements. We caution you to not place undue reliance on these statements as a number of risk factors could cause our actual results to differ materially from the expectations expressed in such forward-looking statements. The risk management section of the MD&A describes the most significant risks to which the bank is exposed and, if not managed appropriately, could have a material impact on our future financial results. These risk factors include: credit risk, liquidity and funding risk, market risk and structural interest rate risk. Additional risks that could cause our actual results to differ materially from the expectations expressed in such forward-looking statements include: operational risks (including compliance, regulatory, financial crime, security and fraud, and fiduciary risks) and reputational risks. Refer to the 'Risk management' section of this report for a description of these risks. Additional factors that may cause our actual results to differ materially from the expectations expressed in such forward-looking statements include: general economic and market conditions, fiscal and monetary policies, changes in laws, regulations and approach to supervision, level of competition and disruptive technology, changes to our credit rating, and operational and infrastructure risks. Refer to 'Factors that may affect future results' section of this report for a description of these risk factors. We caution you that the risk factors disclosed above are not exhaustive, and there could be other uncertainties and potential risk factors not considered here which may adversely affect our results and financial condition. Any forward-looking statements in this document speak only as of the date of this document. We do not undertake any obligation to, and expressly disclaim any obligation to, update or alter our forward-looking statements, whether as a result of new information, subsequent events or otherwise, except as required under applicable securities legislation.

Who we are

HSBC Bank Canada is the leading international bank in the country. We help companies and individuals across Canada to do business and manage their finances internationally through three global business lines: Commercial Banking, Global Banking and Markets, and Retail Banking and Wealth Management. No international bank has our Canadian presence and no domestic bank has our international reach.

Canada is a priority market for the HSBC Group and a key player in HSBC's work to support customers and drive growth, leveraging its footprint across all key trade corridors, including in North America, alongside the United States and Mexico, and with China.

The HSBC Group is one of the world's largest banking and financial services groups with assets of US$2,522bn at 31 December 2017. HSBC serves customers worldwide through an international network of about 3,900 offices in 67 countries and territories in Europe, Asia, North and Latin America, and the Middle East and North Africa.

Throughout HSBC's history we have been where the growth is, connecting customers to opportunities, enabling businesses to thrive and economies to prosper, helping people fulfil their hopes and dreams and realize their ambitions.

Shares in HSBC Holdings are listed on the London, Hong Kong, New York, Paris and Bermuda stock exchanges. The shares are traded in New York in the form of American Depositary Receipts.

Our strategic priorities

HSBC Connecting Customers to Opportunities

HSBC Bank Canada is an integral part of one of the most international banking and financial services organizations in the world.

The value of our international network comes from our connections to the people and companies that drive economic activity. We provide products and services to meet diverse financial needs – from purchasing a music download to financing the construction of an international airport. Our relationships reflect the geographic reach of our network and the range of customers we support.

Our network of customers provides us with significant insight into trade and capital flows across supply chains. When we bank customers on both sides of a transaction, we can help them overcome obstacles and operate more efficiently. We are uniquely positioned to be the bridge between customers, both large and small, around the world.

HSBC's global businesses set globally consistent business strategies and operating models and manage the products and services offered to our customers.

The three HSBC global businesses that operate in Canada are:

Commercial Banking ('CMB') which supports business customers with banking products and services to help them operate and grow. Our customers range from small enterprises, through to large companies that operate globally.

Global Banking and Markets ('GB&M') which provides financial services and products to corporates, governments and institutions. Our comprehensive range of products and solutions can be combined and customized to meet our customers' specific objectives – from primary equity and debt capital to global trade and receivables finance.

Retail Banking and Wealth Management ('RBWM') which helps customers manage their finances, buy their home, save and invest for the future.

HSBC Values

Values define who we are as an organization and what makes us distinctive.

- We are **open** to different ideas and cultures and value diverse perspectives.
- We are **connected** to our customers, communities, regulators and each other, caring about individuals and their progress.
- We are **dependable**, standing firm for what is right and delivering on commitments.

These values reflect the best aspects of the HSBC Group's 150-year heritage. They are critical to fulfilling our purpose to help businesses to thrive, economies to prosper and people to realize their ambitions.

Our role in society

HSBC's ambition is to be recognized as the world's leading and most respected international bank. How we do business is as important as what we do. We seek to build trusting and lasting relationships with our many stakeholders to generate value in society and deliver long-term shareholder returns.

We are part of a group that serves millions of customers around the world, ranging from individuals to the largest companies. We are committed to conduct our business in a way that delivers fair value to customers, strengthens our communities and helps ensure a properly functioning financial system.

We employ thousands of people, providing them livelihoods and opportunities for professional development and personal growth. We value diversity in all its forms as essential to who we are and our ability to fulfill our purpose. In Canada, our board of directors reached gender parity in 2013 as did our Executive Committee – a first for the industry in Canada. Our focus continues to be on achieving better diversity across all dimensions.

We also recognize the significant role that the financial system has in tackling challenges such as financial crime and climate change. We are strengthening our ability to safeguard customers and ourselves against financial crime, and believe this will be a source of long-term advantage for our business and our customers. We are also committed to helping enable a transition to a low carbon economy through our business activities and own operations.

Strategy

As communicated to investors in June 2015, HSBC is focusing on a series of 10 actions to drive HSBC Group strategy and capture value from its global network. Of those actions, the following are applicable to Canada:

Management's Discussion and Analysis (continued)

- Realize the value of the Group's international network
- Rebuild North American profitability focusing on opportunities offered in the North American Trade corridor
- Renminbi ('RMB') internationalization
- Reduce risk-weighted assets ('RWA')
- Deliver cost savings
- Safeguard against financial crime

In 2016, HSBC Bank Canada developed a 5-year Strategic Plan directing its efforts and actions to implement the Group's strategy in the Canadian business. Canada is designated as one of HSBC's priority markets and significant investments have been made in Canada in 2017. This will continue over the plan period.

Capture value from HSBC's international network
HSBC has an unparalleled international network that provides access to more than 90% of global GDP, trade and capital flows. We use it to offer products that facilitate trade and investment, and help customers participate in global growth opportunities. Our global presence helps us build deeper and more enduring relationships with businesses and individuals with international needs. Our strategic plan is built around long-term trends and reflects our distinctive advantages and strengths in key international trade corridors.

Focus on opportunities in the North American trade corridor
We continue to realize value from the network across North America as our business works closely with our affiliates in the US and Mexico. We work together in fulfilling our customers' cross border banking needs, including cross border product and sales initiatives and improvements in systems and processes to provide efficient cross border service. In July 2017, *Euromoney* magazine named HSBC the 'Best Bank for Transaction Services – North America' at its annual Awards for Excellence.

Focus on Greater China and RMB internationalization
Identifying new opportunities where the Group is present in Greater China and its ability to undertake transactions in the RMB currency can add value for our customers. We work closely with our colleagues in Greater China to assist our clients in conducting business in this key trade corridor.

Leverage our universal banking model
Our three global businesses that operate in Canada serve the full range of banking customers, from individual savers to large multinational companies. This universal banking model enables us to effectively meet customers' diverse financial needs. Our balanced mix of businesses supports a strong capital and funding base, provides competitive rewards to employees, and generates stable shareholder returns. The Strategic Plan includes investments to improve synergies in servicing clients with needs spanning across our global businesses.

Invest in wealth management and select retail businesses
HSBC aims to capture opportunities arising from social mobility and wealth creation in our priority markets, including Canada. HSBC's global network and our extensive expertise in international markets provide a competitive advantage in serving Canadian retail and wealth management customers. We continue to make significant investments in digital technologies to better serve our customers and achieve operational efficiencies. In 2017, we launched the Premier World Elite MasterCard which caters to our internationally minded customer base, offering a range of privileges, rewards and travel benefits.

Reduce risk-weighted assets
We have implemented initiatives to optimize systems and processes to improve data collection and reposition portfolios to ensure returns on risk-weighted assets are commensurate with the risks in the current environment. We implemented initiatives to improve return on risk-weighted assets through improvements in data quality and modeling, as well as portfolio optimization.

Deliver cost savings
We continue to take actions to better manage our costs. We are growing our digital capabilities and realizing efficiency gains through automating or re-engineering processes. We are also simplifying our technology and reshaping our global functions.

Safeguard against financial crime
Our aim is to safeguard customers, ourselves and the financial services industry from financial crime. We have made significant investments in Global Standards and have made good progress on our implementation plans including our continued efforts to strengthen our Know Your Customer policies and processes across our business.

Financial summary

Financial performance and position

($ millions, except where otherwise stated)	Year ended		
	31 December 2017	31 December 2016	31 December 2015
Financial performance for the year ended 31 December			
Total operating income	**2,070**	2,079	2,037
Profit before income tax expense	**895**	715	617
Profit attributable to the common shareholder	**630**	486	414
Basic earnings per common share ($)	**1.26**	0.97	0.83
Financial position at 31 December			
Total assets	**96,379**	94,657	94,024
Loans and advances to customers	**50,337**	46,907	48,378
Customer accounts	**57,054**	56,674	55,089
Ratio of customer advances to customer accounts (%)[1]	**88.2**	82.8	87.8
Shareholders' equity	**5,710**	5,415	5,376
Average total shareholders' equity to average total assets (%)[1]	**5.9**	5.7	5.7

Capital measures, performance ratios, and efficiency and revenue mix ratios

($ millions, except where otherwise stated)	Year ended	
	31 December 2017	31 December 2016
Capital measures[2]		
Common equity tier 1 capital ratio (%)	**10.5**	10.5
Tier 1 ratio (%)	**12.4**	12.5
Total capital ratio (%)	**14.7**	13.5
Leverage ratio (%)	**4.9**	4.7
Risk-weighted assets ($m)	**45,035**	42,005
Performance ratios (%)[1]		
Return ratios (%)		
Return on average common shareholder's equity	**13.3**	10.6
Post-tax return on average total assets	**0.66**	0.51
Pre-tax return on average risk-weighted assets[2]	**2.1**	1.7
Credit coverage ratios (%)		
Loan impairment charges to total operating income	**n/a**	5.1
Loan impairment charges to average gross customer advances and acceptances	**n/a**	0.2
Total impairment allowances to impaired loans and acceptances at year end	**73.4**	56.7
Efficiency and revenue mix ratios (%)[1]		
Cost efficiency ratio	**62.2**	60.4
Adjusted cost efficiency ratio	**62.1**	60.2
As a percentage of total operating income:		
– net interest income	**56.9**	54.2
– net fee income	**31.5**	32.1
– net trading income	**6.0**	9.1

1 *Refer to the 'Use of non-IFRS financial measures' section of this document for a discussion of non-IFRS financial measures.*

2 *The bank assesses capital adequacy against standards established in guidelines issued by OFSI in accordance with the Basel III capital adequacy framework.*

Management's Discussion and Analysis (continued)

Use of non-IFRS financial measures

In measuring our performance, the financial measures that we use include those which have been derived from our reported results. However, these are not presented within the Financial Statements and are not defined under IFRS. These are considered non-IFRS financial measures and are unlikely to be comparable to similar measures presented by other companies. The following non-IFRS financial measures are used throughout this document and their purposes and definitions are discussed below.

Financial position ratios

These measures are indicators of the stability of the bank's balance sheet and the degree to which funds are deployed to fund assets.

Ratio of customer advances to customer accounts is calculated by dividing loans and advances to customers by customer accounts using year-end balances.

Average total shareholders' equity to average total assets is calculated by dividing average total shareholders' equity for the year (determined using month-end balances) with average total assets for the year (determined using month-end balances).

Return ratios

Return ratios are useful for management to evaluate profitability on equity, assets and risk-weighted assets.

Return on average common shareholder's equity is calculated as annual profit attributable to the common shareholder divided by average common equity (determined using month-end balances).

Post-tax return on average total assets is calculated as annual profit attributable to common shareholders divided by average assets (determined using month-end balances).

Pre-tax return on average risk-weighted assets is calculated as the profit before income tax expense divided by the average monthly balances of risk-weighted assets for the year. Risk-weighted assets are calculated using guidelines issued by OSFI in accordance with the Basel III capital adequacy framework.

Credit coverage ratios

Credit coverage ratios are useful to management as a measure of the extent of incurred loan impairment charges relative to the bank's performance and size of its customer loan portfolio during the year.

Loan impairment charges to total operating income is calculated as annual loan impairment charges and other credit provisions, as a percentage of total operating income for the year.

Loan impairment charges to average gross customer advances and acceptances is calculated as annual loan impairment charges and other credit provisions for the year as a percentage of average gross customer advances and acceptances (determined using month-end balances during the year).

Total impairment allowances to impaired loans and acceptances at year-end is calculated as total impairment allowances as a percentage of impaired loans and acceptances using year-end balances.

Efficiency and revenue mix ratios

Efficiency and revenue mix ratios are measures of the bank's efficiency in managing its operating expenses to generate revenue and demonstrate the contribution of each of the primary revenue streams to total income.

Cost efficiency ratio is calculated as annual total operating expenses as a percentage of annual total operating income.

Adjusted cost efficiency ratio is calculated similar to the cost efficiency ratio; however, annual total operating income excludes annual gains and losses from financial instruments designated at fair value, as the movement in value of the bank's own subordinated debt issues are primarily driven by changes in market rates and are not under the control of management.

Net interest income, net fee income and net trading income as a percentage of total operating income is calculated as annual net interest income, annual net fee income and annual net trading income divided by annual total operating income.

Financial performance 2017

Summary consolidated income statement

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Net interest income	**1,177**	1,127
Net fee income	**653**	667
Net trading income	**125**	190
Net expense from financial instruments designated at fair value	**(4)**	(4)
Gains less losses from financial investments	**31**	24
Other operating income	**88**	75
Total operating income	**2,070**	2,079
Loan impairment recoveries/(charges) and other credit risk provisions	**108**	(107)
Net operating income	**2,178**	1,972
Total operating expenses	**(1,289)**	(1,255)
Operating profit	**889**	717
Share of profit/(loss) in associates	**6**	(2)
Profit before income tax expense	**895**	715
Income tax expense	**(227)**	(191)
Profit for the year	**668**	524

Overview

HSBC Bank Canada reported a profit before income tax expense for 2017 of $895m, an increase of $180m, or 25%, compared with 2016.

The increase in profit before tax was primarily driven by net loan impairment recoveries of $108m, compared with net loan impairment charges of $107m in 2016, an improvement of $215m. This improvement on the prior year is due to active risk management and favourable credit conditions, primarily in the oil and gas industry. In addition, net interest income increased by $50m, or 4.4%, driven by growth in loans and advances, interest recovered on impaired loans and the impact of the Bank of Canada rate changes in July and September.

These gains were partially offset by a reduction in trading income of $65m, or 34%, compared with the prior year due to a one-off novation transaction and credit and funding valuation adjustments, both with a favourable impact to trading income in the prior year. Furthermore, total operating expenses increased by $34m, or 2.7%, reflecting strategic spending to drive future growth and reduce costs as well as continued investments in the implementation of risk and compliance initiatives.

Management's Discussion and Analysis (continued)

Performance by income and expense item

Net interest income

Summary of interest income by types of assets

	Year ended 31 December 2017			Year ended 31 December 2016[3]		
Interest income	*Average balance* **$m**	*Interest income* **$m**	*Yield* **%**	*Average balance* $m	*Interest income* $m	*Yield* %
Short-term funds and loans and advances to banks	**1,137**	**10**	**0.88**	1,382	11	0.80
Loans and advances to customers[1]	**47,445**	**1,561**	**3.29**	47,573	1,416	2.98
Reverse repurchase agreements – non-trading	**7,495**	**62**	**0.83**	7,998	40	0.50
Financial investments	**22,458**	**277**	**1.23**	23,551	277	1.18
Other interest-earning assets	**–**	**–**	**–**	8	–	0.00
Total interest-earning assets	**78,535**	**1,910**	**2.43**	80,512	1,744	2.17
Trading assets and financial assets designated at fair value[2]	**5,875**	**72**	**1.23**	5,044	44	0.87
Non interest-earning assets	**11,171**	**–**	**–**	11,948	–	–
Year ended 31 December	**95,581**	**1,982**	**2.07**	97,504	1,788	1.83

1 *Effective 1 January 2017, certain amounts earned relating to the hedging of loans and advances were prospectively reclassified from interest expense to interest income.*

2 *Interest income and expense on trading assets and liabilities is reported as `Net trading income' in the consolidated income statement.*

3 *Certain prior period amounts have been reclassified to conform with the current period presentation.*

Summary of interest expense by type of liabilities and equity

	Year ended 31 December 2017			Year ended 31 December 2016[5]		
Interest expense	*Average balance* **$m**	*Interest expense* **$m**	*Cost* **%**	*Average balance* $m	*Interest expense* $m	*Cost* %
Deposits by banks[3]	**952**	**1**	**0.10**	814	4	0.55
Financial liabilities designated at fair value – own debt issued	**109**	**1**	**1.22**	408	5	1.11
Customer accounts[1,4]	**49,519**	**394**	**0.80**	49,205	257	0.52
Repurchase agreements – non-trading	**5,396**	**45**	**0.84**	6,331	31	0.49
Debt securities in issue	**10,654**	**235**	**2.21**	10,641	254	2.39
Other interest-bearing liabilities	**2,299**	**57**	**2.49**	2,196	66	3.02
Total interest-bearing liabilities	**68,929**	**733**	**1.06**	69,595	617	0.89
Trading liabilities and financial liabilities designated at fair value (excluding own debt issued)[2]	**3,469**	**49**	**1.42**	2,664	27	1.03
Non-interest bearing current accounts	**6,207**	**–**	**–**	5,830	–	–
Total equity and other non-interest bearing liabilities	**16,976**	**–**	**–**	19,415	–	–
Year ended 31 December	**95,581**	**782**	**0.82**	97,504	644	0.66
Net interest income – year ended 31 December		**1,177**			1,127	

1 *Effective 1 January 2017, certain amounts earned relating to the hedging of loans and advances were prospectively reclassified from interest expense to interest income.*

2 *Interest income and expense on trading assets and liabilities is reported as `Net trading income' in the consolidated income statement.*

3 *Includes interest-bearing bank deposits only.*

4 *Includes interest-bearing customer accounts only.*

5 *Certain prior period amounts have been reclassified to conform with the current period presentation.*

Net interest income for 2017 was $1,177m, an increase of $50m, or 4.4%, compared with 2016. The increase was driven by growth in loans and advances, particularly mortgage balances, interest recovered on impaired loans and the impact of the Bank of Canada rate changes in July and September.

Management's Discussion and Analysis (continued)

Net fee income

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Credit facilities	**290**	297
Funds under management	**191**	175
Account services	**63**	68
Credit cards	**55**	56
Corporate finance	**49**	51
Remittances	**30**	33
Brokerage commissions	**9**	5
Insurance commissions	**6**	8
Trade finance import/export	**9**	9
Trustee fees	**5**	5
Other fees and commissions	**22**	28
Fee income	**729**	735
Less: fee expense	**(76)**	(68)
Net fee income	**653**	667

Net fee income for 2017 was $653m, a decrease of $14m, or 2.1%, compared with 2016. Contributing to the decrease in net fee income were lower credit facilities fees, account services fees and other fees and commissions, which were partially offset by higher assets under management fees from growth in Wealth balances. Fee expenses increased by $8m, or 12%, due to higher charges from interbank and clearing fees, fees related credit card rewards and incentives paid to new customers.

Net trading income

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Trading activities	**106**	149
Credit valuation, debit valuation, and funding fair value adjustments	**(1)**	26
Net interest from trading activities	**23**	17
Hedge ineffectiveness	**(3)**	(2)
Net trading income	**125**	190

Net trading income for 2017 was $125m, a decrease of $65m, or 34%, compared with 2016. The decrease was mainly due to a one-off novation transaction and credit and funding valuation adjustments, due to the tightening of client and HSBC's own credit spreads, that both had a favourable impact on trading income in the prior year. Net interest from trading activities increased by $6m, or 35%, primarily due to higher interest income on debt securities due to fluctuation in yields and higher average trading balances.

Other items of income

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Net expense from financial instruments designated at fair value	**(4)**	(4)
Gains less losses from financial investments	**31**	24
Other operating income	**88**	75
Other items of income	**115**	95

Net expense from financial instruments designated at fair value remained unchanged from 2016 at $4m. The bank previously designated certain of its own subordinated debentures to be recorded at fair value. On 10 April 2017 the debentures were fully redeemed in accordance with their contractual terms.

Gains less losses from financial investments for 2017 were $31m, an increase of $7m, or 29%, compared with 2016. The bank realizes gains and losses from financial investments from the disposal of available-for-sale financial investments driven by balance sheet management activities. During 2017 we benefitted from higher gains on the disposal of financial investments arising from the re-balancing of the bank's liquid asset portfolio.

Other operating income for 2017 was $88m, an increase of $13m, or 17%, compared with 2016. The increase was mainly due to higher income from HSBC Group entities for software development activities performed by the bank.

Loan impairment recoveries/charges and other credit risk provisions

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Individually assessed (recoveries)/charges	**(14)**	184
Collectively assessed recoveries	**(49)**	(61)
Loan impairment (recoveries)/charges	**(63)**	123
Other credit risk reversal of provisions	**(45)**	(16)
Net loan impairment (recoveries)/charges and other credit risk provisions	**(108)**	107

Loan impairment charges and other credit risk provisions for 2017 resulted in a recovery of $108m, an improvement of $215m compared with 2016.

The net loan impairment recovery over the comparative period reflects active risk management and improvements in credit quality, primarily in the oil and gas industry.

Total operating expenses

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Employee compensation and benefits	**705**	662
General and administrative expenses	**537**	550
Depreciation of property, plant and equipment	**33**	33
Amortization and impairment of intangible assets	**14**	10
Total operating expenses	**1,289**	1,255

Total operating expenses for 2017 were $1,289m, an increase of $34m, or 2.7%, compared with 2016. The increase reflects strategic spending within the global businesses to drive future growth and reduce costs as well as continued investments in the implementation of risk and compliance initiatives.

Share of profit/loss in associates

Share of profit in associates for 2017 was a $6m gain, compared with a loss of $2m in 2016. The share of profits represents changes in the value of the bank's investments in private equity funds.

Income tax expense

The effective tax rate for 2017 was 25.3%, which is lower than the statutory tax rate, due to the resolution of matters with the tax authorities. The effective tax rate for 2016 was 26.7%.

Management's Discussion and Analysis (continued)

Movement in financial position

Consolidated balance sheet

	Year ended	
	31 December 2017 $m	31 December 2016 $m
ASSETS		
Cash and balances at central banks	**411**	66
Items in the course of collection from other banks	**25**	58
Trading assets	**5,373**	6,288
Derivatives	**3,675**	3,850
Loans and advances to banks	**1,221**	1,071
Loans and advances to customers	**50,337**	46,907
Reverse repurchase agreements – non-trading	**6,153**	5,938
Financial investments	**22,913**	25,231
Other assets	**899**	417
Prepayments and accrued income	**213**	186
Customers' liability under acceptances	**4,801**	4,322
Current tax assets	**44**	30
Property, plant and equipment	**106**	104
Goodwill and intangible assets	**90**	70
Deferred taxes	**118**	119
Total assets	**96,379**	94,657
LIABILITIES AND EQUITY		
Liabilities		
Deposits by banks	**1,696**	946
Customer accounts	**57,054**	56,674
Repurchase agreements – non-trading	**4,604**	4,345
Items in the course of transmission to other banks	**299**	82
Trading liabilities	**3,701**	3,784
Financial liabilities designated at fair value	**–**	403
Derivatives	**3,516**	3,838
Debt securities in issue	**10,820**	10,256
Other liabilities	**2,217**	2,610
Acceptances	**4,801**	4,322
Accruals and deferred income	**475**	475
Retirement benefit liabilities	**346**	342
Subordinated liabilities	**1,039**	1,039
Provisions	**61**	116
Current tax liabilities	**40**	10
Total liabilities	**90,669**	89,242
Equity		
Common shares	**1,225**	1,225
Preferred shares	**850**	850
Other reserves	**(61)**	27
Retained earnings	**3,696**	3,313
Total equity	**5,710**	5,415
Total equity and liabilities	**96,379**	94,657

Assets

Total assets at 31 December 2017 were $96.4bn, an increase of $1.7bn, or 1.8%, from 31 December 2016. The increase in assets is partly due to growth in loans and advances to customers of $3.4bn compared with 2016. The increase is driven by growth in our residential mortgages portfolio, an increase in client lending activity in our Global Banking business and higher facility utilization in our commercial lending portfolio. Other assets increased by $0.5bn due to higher unsettled balances at year-end. Customers' liability under acceptances increased by $0.5bn due to an increase in the volume of acceptances. Cash and balances at central banks increased by $0.3bn due to the issuance of the Class 1, Series I preferred shares on 7 December 2017. Increased reverse repurchase activity led to a growth of $0.2bn.

The growth in loans and advances was partly funded by a decrease in financial investments of $2.3bn as part of Balance Sheet Management activities. Trading assets decreased by $0.9bn mainly due to a reduction in debt securities held for trading and a decrease in settlement accounts due to the timing of trades, which were partially offset by higher treasury and other eligible bills.

Liabilities

Total liabilities at 31 December 2017 were $90.7bn, an increase of $1.4bn, or 1.6%, from 31 December 2016. The increase in liabilities is partly due to growth in deposits by banks in money market and vostro accounts of $0.8bn. Debt securities in issue grew by $0.6bn due to an increase in short and medium term notes. Acceptances increased by $0.5bn which corresponds to the movement within assets. Customer accounts grew by $0.4bn due to increases in term deposits and current accounts within Retail Banking and Wealth Management and higher deposits from existing customers in Global Banking, which were offset in part by a decrease in Commercial Banking deposits.

These increases in liabilities were partially offset by a reduction in financial liabilities designated at fair value from $0.4bn in 2016 to nil in 2017 due to the redemption of subordinated debentures during the year. Other liabilities decreased by $0.4bn primarily due to the repayment of long term funding at the end of the year, which was partly offset by a higher short-term payable relating to the redemption of the Class 1 series C and D preference shares on 31 December 2017.

Equity

Total equity at 31 December 2017 was $5.7bn, an increase of $0.3bn, or 5.4%, from 31 December 2016, due to profits generated during the year net of dividends paid on common shares and preferred shares.

Global businesses

We manage and report our operations around the following global businesses: Commercial Banking, Global Banking and Markets, and Retail Banking and Wealth Management. The latter segment also includes the run-off Consumer Finance portfolio following a previous decision to wind-down this business in Canada.

Commercial Banking ('CMB')

Commercial Banking offers a full range of commercial financial services and tailored solutions to customers ranging from small and medium-sized enterprises to publicly quoted companies. HSBC serves close to 2 million CMB customers globally in 55 countries and territories. Canada is a priority market for HSBC Group and the third largest profit contributor as of 2017. We aim to be recognized as the leading international trade and business bank by connecting customers to global markets and by enhancing collaboration within the Group, particularly within the North American and Canada-China trade corridors. Implementing HSBC's global operating model in Canada increases transparency, enables consistency, improves efficiency and ensures the right outcomes for our customers.

Our customers are segmented based on their needs and degree of complexity: Business Banking for small enterprises with standard banking needs; and Corporate Banking for companies with complex banking needs and a global footprint. Our front line is represented in four regions, British Columbia, Prairies, Ontario and Atlantic, and Quebec regions with dedicated relationship managers supporting either Business Banking or Corporate Banking customers.

Products and services

– *Credit and Lending:* we offer a broad range of domestic and cross-border financing, including overdrafts, corporate cards, term loans and syndicated, leveraged, acquisition and project finance.

Management's Discussion and Analysis (continued)

– *Global Trade and Receivables Finance:* we support customers' access to the world's trade flows and provide unrivaled experience in addressing today's most complex trade challenges. Our comprehensive suite of products and services, letters of credit, collections, guarantees, receivables finance, supply chain solutions, commodity and structured finance and risk distribution, can be combined into global solutions that make it easier for businesses to manage risk, process transactions and fund activities throughout the trade cycle.

– *Global Liquidity and Cash Management:* we are part of a global network strategically located where most of the world's payments and capital flows originate. We provide local, regional and global transaction banking services including payments, collections, account services, e-commerce and liquidity management via electronic platforms such as HSBCNet and HSBC Connect. We maintain our leadership position in international RMB services and are well positioned to leverage opportunities in Canada.

– *Collaboration:* our CMB franchise represents a key customer base for products and services provided by GB&M and RBWM, including foreign exchange, interest rate, capital markets and advisory services, personal accounts services, wealth management and wealth transition services.

Strategic direction

We support our customers with tailored relationship management and financial solutions to allow them to operate efficiently and to grow. We are focused on creating value from our network which covers 90% of the global GDP, trade and capital flows. This includes providing customers with working capital, term loans, payment services, international trade facilitation, project finance and the expertise for acquisitions and access to the financial markets.

Building long–term relationships with reputable customers is core to our growth strategy and organizational values. One of the ways we do this is through insight programs designed to deepen our understanding of customer needs and reinforce our relationship with them. This work has allowed us to identify customers' critical business issues and better tailor our services to meet their needs.

In Canada, our strategic plan is focused on growing market share through expansion in the eastern region (particularly Ontario and Quebec), increasing productivity by deepening product penetration, streamlining processes, leveraging our differentiated product suite in Global Trade and Receivable Finance and Global Liquidity and Cash Management, and building on our position as the leading international bank with improved positioning in the US-Canada trade corridor. In 2017, we also launched technology to make it easier and more convenient for customers to electronically execute documentation, comply with our 'know your client' information needs, and connect with HSBC customers in other markets. We further expanded our product offering to include Receivables Finance, Supply Chain Finance, Corporate Cards and additional deposit instruments.

After weathering the energy sector downturn in previous years, we have regained momentum in 2017 with over $1 billion of lending balance growth since December 2016, driven mainly by new-to-bank loans and acceptances. Our international connectivity continues to be a key driver of growth, as evidenced by double-digit revenue growth rate in both our International Subsidiary Banking and Greater-China trade corridor.

Review of financial performance

Summary income statement

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Net interest income	**545**	525
Net fee income	**286**	293
Net trading income	**32**	31
Gains less losses from financial investments	**1**	2
Other operating income	**21**	18
Total operating income	**885**	869
Loan impairment recoveries/(charges) and other credit risk provisions	**93**	(90)
Net operating income	**978**	779
Total operating expenses	**(388)**	(392)
Profit before income tax expense	**590**	387

Overview

Profit before income tax expense for 2017 was $590m, an increase of $203m, or 52%, compared with 2016. The increase was driven primarily by lower loan impairment charges reflecting improved credit quality in the energy sector and higher operating income driven by higher lending balances, interest recovered on impaired loans and the impact of the Bank of Canada rate changes in July and September.

Financial performance by income and expense item

Net interest income for 2017 was $545m, an increase of $20m, or 3.8%, compared with 2016, driven primarily by interest recovered on impaired loans, higher outstanding loans and advances, and the impact of the Bank of Canada rate changes in July and September, offset partially by lower deposit balances.

Net fee income for 2017 was $286m, a decrease of $7m or 2.4%, compared with 2016, driven mainly by lower standby fees collected on undrawn credit facilities.

Net trading income for 2017 was $32m, an increase of $1m, or 3.2%, compared with 2016, due to higher foreign exchange revenue.

Gains less losses from financial investments for 2017 were $1m, a $1m decrease compared with 2016, driven by the disposal of certain available-for-sale securities in 2016.

Other operating income for 2017 was $21m, an increase of $3m, or 17%, compared with 2016, driven by higher inter-company revenue.

Loan impairment charges and other credit risk provisions for 2017 were a recovery of $93m, compared with a charge of $90m in 2016. The decrease in impairment charges was driven by significant reversals of specific provisions in the oil and gas industry, as well as releases in collective provisions, reflecting overall improvement in credit quality.

Total operating expenses for 2017 were $388m, a decrease of $4m, or 1%, compared with 2016. The decreases were the result of initiatives to make our technology and operations more efficient, which were offset partially by investments in building our front line team to grow market share in support of our strategic plan.

Global Banking and Markets ('GB&M')

GB&M provides tailored financial solutions to major government, corporate and institutional customers worldwide.

Strategic direction

GB&M continues to pursue its well-established strategy to provide tailored financial solutions, aiming to be a top tier bank to our priority customers. This strategy has evolved to include a greater emphasis on connectivity between HSBC's global businesses across regions leveraging the HSBC Group's extensive distribution network.

We focus on four strategic initiatives:

- leveraging our distinctive geographical network which connects developed and faster-growing regions;
- connecting customers to global growth opportunities;
- continuing to be well positioned in products that will benefit from global trends; and
- enhancing collaboration with other global businesses to serve the needs of our international customers.

Management's Discussion and Analysis (continued)

Strengthening our management of financial crime and other risks, and simplifying processes also remain top priorities for GB&M.

Products and services

GB&M takes a long-term relationship management approach to build a full understanding of customers' financial requirements and strategic goals. Customer coverage is centralized in Global Banking, under relationship managers organized by sector, region and country who work to understand customer needs and provide holistic solutions by bringing together our broad array of products and extensive global network.

Our customer coverage and product teams are supported by a unique customer relationship management platform and a comprehensive customer planning process. Our teams use these platforms to better serve global customers and help connect them to international growth opportunities.

GB&M provides wholesale capital markets and transaction banking services through the following businesses.

Sales and trading services in the secondary market are provided through the Credit, Rates and Foreign Exchange asset class:

– *Credit and Rates* sells, trades and distributes fixed income securities to customers including corporates, financial institutions, sovereigns, agencies and public sector issuers. They assist customers in managing risk via interest rate derivatives and facilitate customer facing financing activities.

– *Foreign Exchange* provides spot and derivative products to meet the investment demands of institutional investors, the hedging needs of businesses of all sizes as well as the needs of retail customers in our branches.

– *Capital Financing* offers strategic financing and advisory services focusing on a customer's capital structure. Products include debt and equity capital raising in the primary market, transformative merger and acquisition advisory and execution, corporate lending and structured financing such as leveraged and acquisition finance, asset and structured finance and infrastructure and project finance.

– *Global Liquidity and Cash Management* helps customers move, control, access and invest their cash. Products include non-retail deposit taking and international, regional and domestic payments and cash management services.

– *Global Trade and Receivables Finance* provides trade services to support customers throughout their trade cycle.

Review of financial performance

Summary income statement

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Net interest income	**98**	75
Net fee income	**152**	158
Net trading income	**52**	124
Gains less losses from financial investments	**–**	(1)
Other operating income	**–**	(6)
Total operating income	**302**	350
Loan impairment recoveries/(charges) and other credit risk provisions	**6**	(10)
Net operating income	**308**	340
Total operating expenses	**(138)**	(134)
Profit before income tax expense	**170**	206

Overview

Global Banking and Markets generated higher event fee revenues through increased advisory and debt capital markets activities by leveraging HSBC's global network on behalf of our clients. Growth has been focused on the North American trade corridors with double digit growth achieved year to date.

Profit before income tax expense was $170m for 2017, a decrease of $36m, or 17% compared with 2016. The decrease was driven by a one-off novation transaction and credit and funding valuation adjustments, both with a favourable impact to trading income in the prior year. This was partially offset by higher revenues from advisory and debt underwriting activities and favorable loan impairment charges.

Financial performance by income and expense item

Net interest income for 2017 was $98m, an increase of $23m, or 31%, compared with 2016. The increase was mainly generated from higher corporate deposits, the impact of increased interest rates and Markets funding activities.

Net fee income for 2017 was $152m, a decrease of $6m, or 3.8%, compared with 2016, primarily due to lower equity capital markets fees, partially offset by higher advisory fees and debt underwriting fees.

Net trading income for 2017 was $52m, a decrease of $72m, or 58%, compared with 2016. The decrease was primarily due to a one-off novation transaction and favourable changes in credit and funding valuation adjustments, due to the tightening of client and HSBC's own credit spreads, that both favourably impacted the prior year.

Other operating income for 2017 was nil, an improvement of $6m, due to losses incurred in the prior year on the sale of specific client loans.

Loan impairment charges and other credit risk provisions for 2017 was a recovery of $6m, an improvement of $16m compared with 2016, related to improving conditions in the oil and gas industry.

Total operating expenses for 2017 were $138m, an increase of $4m, or 3%, compared with 2016. The increase was mainly caused by investments in risk and compliance initiatives.

Retail Banking and Wealth Management ('RBWM')

RBWM offers a full range of competitive banking products and services for all Canadians to help them manage their finances and protect and build for their financial future.

In 2017 HSBC launched Jade, an exclusive membership service for high-net-worth customers. In addition, HSBC Premier and Advance propositions are aimed at mass affluent and emerging affluent customers who value a relationship based approach to banking.

These services are offered by a skilled and dedicated team through our national network of branches and ATMs, and via telephone, online and mobile banking.

Products and services

We accept deposits and provide transactional banking services to enable customers to manage their day-to-day finances and save. We offer credit facilities to assist customers with their borrowing requirements, and we provide wealth advisory and investment services to help them to manage their finances.

Strategic direction

In delivering a full range of banking and wealth products and services through our branches and direct channels to individuals we focus on:

– building a consistent, high standard wealth management service for retail customers drawing on our wealth advisory and asset management businesses putting the customer at the heart of what we do;

– leveraging global expertise to efficiently provide a high standard of banking solutions and service to our customers;

– leveraging our international capabilities to differentiate our offering; and

– investing in transformation activities to improve processes and the customer experience, while reducing cost, uplifting distribution capability (primarily digital) and improving product offering across wealth and retail.

To support these initiatives, we are making deepening customer relationships and enhancing our distribution capabilities a priority. Our management of financial crime and other risks also remain a top priority for RBWM.

Management's Discussion and Analysis (continued)

Review of financial performance

Summary income statement

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Net interest income	**425**	402
Net fee income	**215**	216
Net trading income	**24**	22
Gains less losses from financial investments	**1**	1
Other operating income	**10**	13
Total operating income	**675**	654
Loan impairment recoveries/(charges) and other credit risk provisions	**9**	(7)
Net operating income	**684**	647
Total operating expenses	**(604)**	(587)
Profit before income tax expense	**80**	60

Profit before income tax expense

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Ongoing Retail Banking and Wealth Management business	**56**	33
Run-off consumer finance portfolio	**24**	27
Profit before income tax expense	**80**	60

Overview

Profit before income tax expense for the year was $80m, an increase of $20m, or 33%, compared with 2016, primarily due to higher revenues and loan impairment recoveries, partly offset by higher investments in strategic initiatives. RBWM had strong growth in total relationship balances (comprised of lending, deposits and wealth balances) of $5.9bn, or 7.8%, and growth in market share during 2017. The growth came through strong branding, innovation and strategic investments to make our bank simpler, faster and better for our clients. For example, we extended our branch hours, re-launched an enhanced self-directed brokerage platform (HSBC InvestDirect), introduced Apple Pay, Live Sign to enable remote signing of documents, mobile cheque deposit, live chat for online banking, and the new HSBC Premier World Elite MasterCard. The new card offers Canadian travellers attractive and flexible travel rewards, and is another example of new and innovative products and services available from HSBC Bank Canada. Customer satisfaction is also increasing as a result of these investments and is reflected in HSBC's results in the Ipsos Customer Service Excellence Syndicated Study. HSBC saw a statistically significant year-over-year improvement of 10 percentage points for Overall Customer Service Excellence in 2017.

Profit before income tax expense relating to the ongoing business (excluding the run-off consumer finance portfolio) for the year was $56m, an increase of $23m, or 70%, compared with 2016. This is due to higher revenues from significant growth in client relationship balances and lower loan impairment charges, partly offset by investments in strategic initiatives.

Profit before income tax expense relating to the run-off consumer finance portfolio was $24m, compared with $27m for 2016. This was the result of lower interest income on declining balances, partly offset by lower loan impairment charges due to reduced collectively assessed provisions. A gain on the sale of a small portfolio of impaired loans was also included in 2016.

Financial performance of the ongoing business by income and expense item

Net interest income for 2017 was $409m, an increase of $31m, or 8%, compared with 2016 primarily due to volume growth and higher spreads on lending and deposits.

Net fee income for 2017 was $214m, an increase of $2m, or 1%, compared with 2016 as higher assets under management were largely offset by lower income from credit cards.

Net trading income for 2017 was $24m, an increase of $2m, or 9%, primarily due to higher foreign exchange revenue.

Gains less losses from financial investments remained unchanged at $1m and relates to gains on shares held for the purposes of employee compensation.

Other operating income was $10m, a decrease of $3m, or 23%, primarily due to a gain on the sale of a small portfolio of impaired loans included in 2016.

Loan impairment charges and other credit risk provisions were $4m, a decrease of $11m, or 73%, compared with 2016, notably due to improving credit conditions and reduced collectively assessed provisions.

Total operating expenses for 2017 were $598m, an increase of $20m, or 3%, compared with 2016. This was primarily due to strategic investments to grow our business in Canada and make our bank simpler, faster and better for our customers.

Corporate Centre

'Corporate Centre' contains Balance Sheet Management, interests in associates and joint ventures, the results of movements in fair value of own debt, income related to information technology services provided to HSBC Group companies on an arm's length basis with associated recoveries and other transactions which do not directly relate to our global businesses.

Review of financial performance

Summary income statement

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Net interest income	**109**	125
Net trading income	**17**	13
Net expense from financial instruments designated at fair value	**(4)**	(4)
Gains less losses from financial instruments	**29**	22
Other operating income	**57**	50
Total operating income	**208**	206
Total operating expenses	**(159)**	(142)
Operating profit	**49**	64
Share of profit/(loss) in associates	**6**	(2)
Profit before income tax expense	**55**	62

Profit before tax for 2017 was $55m, a decrease of $7m, or 11%, compared with 2016. Operating expenses increased by $17m, or 12%, due to strategic spending to reduce costs over the longer term. Spending on technology and operations related to services for other HSBC Group entities also increased (with a related increase in other operating income). Net interest income decreased by $16m, or 13%, due to lower yields on investment products versus the prior year. These movements were partially offset by an $8m increase in share of profit in associates from the bank's investments in private equity funds. Gains less losses from financial investments increased by $7m, or 32%, resulting from higher gains on the disposal of financial investments arising from the re-balancing of the bank's liquid asset portfolio. Other operating income increased by $7m, or 14%, mainly due to higher income from Group entities for activities performed by the bank.

Management's Discussion and Analysis (continued)

Fourth quarter 2017 financial performance

Summary consolidated income statement

	Quarter ended	
	31 December 2017 $m	31 December 2016 $m
Net interest income	**318**	282
Net fee income	**159**	169
Net trading income	**31**	45
Net expense from financial instruments designated at fair value	**–**	(1)
Gains less losses from financial investments	**6**	(6)
Other operating income	**26**	23
Total operating income	**540**	512
Loan impairment (charges)/recoveries and other credit risk provisions	**(1)**	61
Net operating income	**539**	573
Total operating expenses	**(333)**	(325)
Operating profit	**206**	248
Share of profit in associates	**–**	3
Profit before income tax expense	**206**	251
Income tax expense	**(54)**	(63)
Profit for the quarter	**152**	188

Overview

HSBC Bank Canada reported a profit before income tax expense of $206m for the fourth quarter of 2017, a decrease of $45m, or 18%, compared with the fourth quarter of 2016.

Loan impairment charges and other credit risk provisions were $1m in 2017 due to specific charges in Commercial Banking. In the fourth quarter of 2016, reversal of impairments, primarily in the oil and gas sectors resulted in a recovery of $61m.

Trading income in the fourth quarter decreased by $14m, or 31%, primarily due to a decrease in Rates derivatives product revenues in the current year and credit and funding fair value adjustments that had a favourable impact on the prior year. This was partially offset by an increase in net interest from trading activities. Net interest income increased by $36m, or 13%, due to higher loans and advances, the impact of the Bank of Canada interest rate increases in 2017 as well as higher interest recovered on impaired loans.

Performance by income and expense item

Net interest income

Summary of interest income by type of assets

	Quarter ended					
	31 December 2017			31 December 2016[3]		
Interest income	*Average balance* **$m**	*Interest income* **$m**	*Yield* **%**	*Average balance* $m	*Interest income* $m	*Yield* %
Short-term funds and loans and advances to banks	**1,179**	**2**	**0.70**	1,408	6	1.58
Loans and advances to customers[1]	**49,171**	**421**	**3.42**	47,058	353	3.00
Reverse repurchase agreements – non-trading	**6,927**	**21**	**1.21**	6,455	10	0.63
Financial investments	**23,038**	**82**	**1.41**	24,937	76	1.21
Other interest-earning assets	**–**	**–**	**–**	–	–	–
Total interest-earning assets	**80,315**	**526**	**2.61**	79,858	445	2.23
Trading assets and financial assets designated at fair value[2]	**4,887**	**22**	**1.79**	6,080	11	0.70
Non-interest-earning assets	**11,099**	**–**	**–**	11,022	–	–
Quarter ended 31 December	**96,301**	**548**	**2.27**	96,960	456	1.88

1 *Effective 1 January 2017, certain amounts earned relating to the hedging of loans and advances were prospectively reclassified from interest expense to interest income.*

2 *Interest income and expense on trading assets and liabilities is reported as 'Net trading income' in the consolidated income statement.*

3 *Certain prior period amounts have been reclassified to conform with the current period presentation.*

Management's Discussion and Analysis (continued)

Summary of interest expense by types of liabilities and equity

	Quarter ended					
	31 December 2017			31 December 2016[5]		
Interest expense	*Average balance* **$m**	*Interest expense* **$m**	*Cost* **%**	*Average balance* $m	*Interest expense* $m	*Cost* %
Deposits by banks[3]	**981**	**1**	**0.11**	867	3	1.59
Financial liabilities designated at fair value – own debt issued	–	–	–	404	5	4.46
Customer accounts[1,4]	**50,394**	**116**	**0.92**	50,674	71	0.56
Repurchase agreements – non-trading	**5,433**	**15**	**1.14**	4,597	8	0.69
Debt securities in issue	**11,059**	**63**	**2.29**	10,604	65	2.46
Other interest-bearing liabilities	**2,615**	**13**	**2.09**	3,632	11	1.25
Total interest-bearing liabilities	**70,482**	**208**	**1.18**	70,778	163	0.92
Trading liabilities and financial liabilities designated at fair value (excluding own debt issued)[2]	**3,092**	**14**	**1.84**	3,176	8	1.05
Non-interest bearing current accounts	**6,393**	**–**	**–**	6,142	–	–
Total equity and other non-interest bearing liabilities	**16,334**	**–**	**–**	16,864	–	–
Quarter ended 31 December	**96,301**	**222**	**0.92**	96,960	171	0.71
Net interest income – Quarter ended 31 December		**318**			282	

1 *Effective 1 January 2017, certain amounts earned relating to the hedging of loans and advances were prospectively reclassified from interest expense to interest income.*

2 *Interest income and expense on trading assets and liabilities is reported as 'Net trading income' in the consolidated income statement.*

3 *Includes interest-bearing bank deposits only.*

4 *Includes interest-bearing customer accounts only.*

5 *Certain prior period amounts have been reclassified to conform with the current period presentation.*

Net interest income for the fourth quarter of 2017 was $318m, an increase of $36m, or 13%, compared with the fourth quarter of 2016, reflecting growth in loans and advances, the impact of the Bank of Canada interest rate hikes in 2017 as well as higher interest recoveries on impaired loans.

Net fee income

	Quarter ended	
	31 December 2017 $m	31 December 2016 $m
Credit facilities	**73**	71
Funds under management	**49**	45
Account services	**14**	17
Credit cards	**15**	15
Corporate finance	**9**	17
Remittances	**7**	10
Brokerage commissions	**3**	1
Insurance commissions	**–**	2
Trade finance import/export	**3**	3
Trustee fees	**2**	1
Other fees and commissions	**7**	4
Fee income	**182**	186
Less: fee expense	**(23)**	(17)
Net fee income	**159**	169

Net fee income for the fourth quarter of 2017 was $159m, a decrease of $10m, or 6%, compared with the fourth quarter of 2016. The decrease was primarily due to a reduction in corporate finance fees, remittances, and account services fees. Fee expenses increased by $6m, or 35%, due to higher credit card rewards fees, incentives paid to new customers and higher brokerage expenses.

Net trading income

	Quarter ended	
	31 December 2017 $m	31 December 2016 $m
Trading activities	**28**	35
Credit valuation, debit valuation, and funding fair value adjustments	**(3)**	6
Net interest from trading activities	**8**	3
Hedge ineffectiveness	**(2)**	1
Net trading income	**31**	45

Net trading income for the fourth quarter of 2017 was $31m, a decrease of $14m, or 31%, compared with the fourth quarter of 2016. Trading activity was $7m lower due to a decrease in Rates derivatives product revenues. Favourable credit and funding fair value adjustments in the prior year also led to a $9m decrease in net trading income. This was partially offset by higher net interest from trading activities of $5m driven by an increase in interest income on debt securities due to the fluctuation in yields and higher average trading balances.

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Other items of income

	Quarter ended	
	31 December 2017 $m	31 December 2016 $m
Net expense from financial instruments designated at fair value	**–**	(1)
Gains less losses from financial investments	**6**	(6)
Other operating income	**26**	23
Other items of income	**32**	16

Net expense from financial instruments designated at fair value for the fourth quarter of 2017 was nil. This balance related to subordinated debentures that the bank previously had designated at fair value. On 10 April 2017 the bank fully redeemed the debentures.

Gains less losses from financial investments for the fourth quarter of 2017 were $6m, an increase of $12m compared with the fourth quarter of 2016. Balance Sheet Management recognized higher gains on sale of available-for-sale debt securities arising from the continued re-balancing of the bank's liquid assets.

Other operating income for the fourth quarter of 2017 was $26m, an increase of $3m, or 13%, compared with the same period in the prior year, primarily due to higher recoveries from HSBC Group for software development activities performed by the bank.

Loan impairment recoveries/charges and other credit risk provisions

	Quarter ended	
	31 December 2017 $m	31 December 2016 $m
Individually assessed charges/(recoveries)	**25**	(33)
Collectively assessed recoveries	**(15)**	(28)
Loan impairment charges/(recoveries)	**10**	(61)
Other credit risk reversal of provisions	**(9)**	–
Net loan impairment charges/(recoveries) and other credit risk provisions	**1**	(61)

Loan impairment charges and other credit risk provisions for the fourth quarter of 2017 were a charge $1m, compared with a recovery of $61m for the same period in the prior year. This was as a result of specific charges in the Commercial Banking business during the fourth quarter of 2017 and the reversal of impairments during the fourth quarter of 2016, primarily from the oil and gas sectors.

Total operating expenses

	Quarter ended	
	31 December 2017 $m	31 December 2016 $m
Employee compensation and benefits	**168**	166
General and administrative expenses	**149**	146
Depreciation of property, plant and equipment	**10**	10
Amortization and impairment of intangible assets	**6**	3
Total operating expenses	**333**	325

Total operating expenses for the fourth quarter of 2017 were $333m, an increase of $8m, or 2.5%, compared with the fourth quarter of 2016. This was largely due to strategic spending within the global businesses to drive future growth and implement risk and compliance initiatives.

Share of profit/loss in associates
Share of profit in associates for the fourth quarter of 2017 decreased by $3m compared with the fourth quarter of 2016. The share of profits represents changes in the value of the bank's investments in private equity funds.

Income tax expense
The effective tax rate in the fourth quarter of 2017 was 26.1%, which is close to the statutory tax rate. The effective tax rate for the fourth quarter of 2016 was 25.0%.

Summary quarterly performance

Summary consolidated income statement

	Quarter ended							
	2017				2016			
	Dec 31 $m	**Sep 30 $m**	**Jun 30 $m**	**Mar 31 $m**	Dec 31 $m	Sep 30 $m	Jun 30 $m	Mar 31 $m
Net interest income	**318**	**292**	**285**	**282**	282	284	280	281
Net fee income	**159**	**169**	**165**	**160**	169	166	171	161
Net trading income	**31**	**41**	**22**	**31**	45	29	49	67
Other items of income	**32**	**26**	**24**	**33**	16	19	25	35
Total operating income	**540**	**528**	**496**	**506**	512	498	525	544
Loan impairment (charges)/recoveries and other credit risk provisions	**(1)**	**14**	**46**	**49**	61	(29)	(54)	(85)
Net operating income	**539**	**542**	**542**	**555**	573	469	471	459
Total operating expenses	**(333)**	**(327)**	**(318)**	**(311)**	(325)	(328)	(301)	(301)
Operating profit	**206**	**215**	**224**	**244**	248	141	170	158
Share of profit/(loss) in associates	**–**	**3**	**4**	**(1)**	3	(3)	(2)	–
Profit before income tax expense	**206**	**218**	**228**	**243**	251	138	168	158
Income tax expense	**(54)**	**(56)**	**(60)**	**(57)**	(63)	(38)	(47)	(43)
Profit for the period	**152**	**162**	**168**	**186**	188	100	121	115
Profit attributable to:								
common shareholder	**142**	**153**	**158**	**177**	178	91	111	106
preferred shareholders	**10**	**9**	**10**	**9**	10	9	10	9
Basic earnings per common share ($)	**0.28**	**0.31**	**0.32**	**0.35**	0.36	0.18	0.22	0.21

Comments on trends over the past eight quarters
Seasonal factors did not have a significant impact on our results.

Net interest income trended upwards throughout 2017 primarily as a result of growth in loans and advances, interest recovered on impaired loans and the impact of the Bank of Canada rate changes in July and September.

Net fee income decreased marginally in 2017 with the biggest fluctuation seen in the fourth quarter of 2017 due to an increase in fee expenses relating to higher fees from credit card rewards, incentives paid to new customers and higher brokerage expenses.

Net trading income declined in 2017 primarily due to 2016 being positively impacted by a one-off novation

Management's Discussion and Analysis (continued)

transaction and favourable changes in the credit and funding valuation adjustments.

Other items of income increased from 2016. Contributing to the increase are higher gains the on sale of available-for-sale debt securities in 2017 arising from the continued re-balancing of the bank's liquid assets. Another causative factor relates to higher income from Group entities for software development activities performed by the bank. The timing of these disposals and recharges to Group led to the variances between the quarters.

Loan impairment charges trended downward throughout 2016 and into 2017 reflecting improved market conditions, primarily in the oil and gas industry. The fourth quarter of 2017 saw an increase in specific loan impairment charges in the Commercial Banking business.

There was a small increase in operating expenses in 2017 compared with 2016 reflecting the bank's continued investments to drive future growth and reduce costs as well as the implementation of risk and compliance initiatives, with fluctuations between the quarters relating to the timing of expenses incurred.

Economic review and outlook

The Canadian economy is expected to have been the fastest growing G7 economy in 2017, with growth of 3.0%, which is largely due to a strong first half. However, with the economy posting growth of 1.7% in Q3, we think that GDP growth has likely peaked. We anticipate that the economy will have grown at a more moderate pace in the second half of the year, and for the economy to expand by 1.9% in 2018 and 1.6% in 2019.

The key driver of the Canadian economy in recent years has been the consumer. That has remained the case in 2017. Over the past four quarters, GDP growth has averaged 3.2% (annualized) per quarter, with consumer spending accounting for almost 70% of that economic expansion.

The strong growth in consumer spending over the past year has been supported, in part, by strong job growth and rising consumer confidence. For example, the Canadian economy created an impressive 394,200 full-time jobs in 2017. The strength of the job market has brought the unemployment rate down from approximately 7% at the end of 2016 to a near 10-year low rate of 5.7% in December 2017. Meanwhile, consumer confidence has rebounded from a post-financial crisis low in early 2016 to its highest point since late 2007.

Despite this good news, wage growth has been modest and disposable income has grown sluggishly. To maintain the momentum in consumer spending, households have borrowed at a rapid pace. As a result, Canada not only has the highest GDP growth in the G7 in 2017, it also has the highest household debt as a share of GDP. In the second quarter of 2017, Canada's household debt was over 100% of GDP. This compares to an average of 62.6% for the rest of the G7.

Even with high debt levels, low interest rates have kept debt service ratios manageable. Hence, alongside the drop in the unemployment rate and the strong job market, fewer Canadians are falling behind on their mortgages. In September 2017, the arrears rate fell to 0.24%, its lowest level since mid-2007. Nonetheless, Canadians are becoming increasingly indebted, a trend that may not be sustainable over the long term.

Looking ahead, we expect the consumer to play a more moderate role as a source of GDP growth. In part, this will reflect a slower pace of job growth. We also anticipate Canadians becoming more prudent borrowers given that interest rates have increased.

The Bank of Canada ('BoC') raised its policy rate by 50 basis points to 1.0% in 2017, and by a further 25 basis points to 1.25% in January 2018. Though the BoC sees rates rising 'over time' we see little need to rush another rate hike. Hence, we anticipate the BoC will leave its policy rate at 1.25% until early 2019. We therefore see interest rates remaining historically low. Even so, the interest rate backdrop is becoming less favourable to households borrowing heavily to support spending.

In our view, the cautious pace of rate hikes reflects the fact that we expect inflation to remain low and that elevated household debt makes the economy more sensitive to interest rates than in the past. In fact, in its October 2017 Monetary Policy Report the BoC revealed that it has changed its main policy model. For the first time, the BoC now incorporates household debt into the analysis of the appropriate stance of monetary policy. We see this as justifying a modest pace of tightening.

In 2018, we see four notable economic developments that could result in heightened economic volatility and uncertainty. The first is the possible termination of, or significant amendments to, the North American Free Trade Agreement ('NAFTA'). The second is the reaction of business investment to the decline in the corporate tax rate in the US that erodes a Canadian tax advantage. The third is the rise in the minimum wage in Ontario at the start of 2018. The fourth is the new mortgage lending rules that are being implemented by the Office of the Superintendent of Financial Institutions ('OSFI').

In our view, the termination of, or significant amendments to, NAFTA would pose a downside risk to exports, business investment, GDP, and the Canadian dollar. We expect the short-term impact of a NAFTA break-up to be modest, unless there is a disruption to cross-border trade. There would, however, be an increase in uncertainty regarding the outlook for exports. In response to NAFTA-related uncertainty, we think Canadian firms should move quickly to take advantage of lower trade barriers with the European Union. We would highlight that the Canada-EU free trade agreement went into force on a provisional basis on 21 September 2017.

In Ontario, the minimum wage rose by 20% to $14/hour at the start of 2018, and is set to rise to $15/hour in 2019. Small business sentiment fell sharply after the announcement of the increase. Some firms might attempt to pass on increases in labour costs to customers. This could put upward pressure on inflation. However, we believe that competition and the increasing availability of other purchasing options, such as through online outlets, could limit the ability of firms to raise prices. Therefore, we see a risk that this could put pressure on corporate profits, which in turn, could weigh on the outlook for employment.

The new mortgage lending rules introduced by OSFI will include a stress test for uninsured mortgages and bans some higher risk lending practices. For example, OSFI's rules will ban 'bundled' loans that pair a mortgage from a regulated lender with another loan from an unregulated lender. These moves aim to close some of the regulatory gaps that were revealed after prior macro-prudential policy measures failed to restrain the housing market.

In particular, past measures applied to insured mortgages whereas much of the growth in mortgage lending in recent years has been in the uninsured segment of the market. OSFI and the Canada Mortgage Housing Corporation ('CMHC') have raised concerns about potential homeowners borrowing from lenders who faced less oversight by federal and provincial regulators to reach the 20% down payment threshold. The growth of unregulated lenders in supporting the growth of uninsured mortgages, potentially increases the vulnerability of the housing market and poses a risk to financial stability. That said, it will take time to assess the impact of the new rules.

On the fiscal policy front, we are starting to see a positive impact from the Federal Government infrastructure spending program. In the third quarter of 2017, despite the slower pace of GDP growth compared with the first half of the year, government capital spending made its largest contribution to GDP growth since mid-2007. We see this program as an important element in boosting the productive capacity of the economy.

After a solid performance through 2016 and 2017, GDP growth in the Canadian economy is expected to slow to 1.9% in 2018. This would be in line with the average pace of growth over the past 8 years, and should ease the shift from a heavy reliance on consumers towards more balanced sources of growth.

Critical accounting estimates and judgments

The preparation of financial information requires the use of estimates and judgments about future conditions.

In view of the inherent uncertainties and the high level of subjectivity involved in the recognition or measurement of items discussed below, it is possible that the outcomes in the next financial year could differ from those on which management's estimates are based, resulting in materially different conclusions from those reached by management for the purposes of the 2017 consolidated financial statements. Management's selection of the bank's accounting policies which contain critical estimates and judgments are discussed below; it reflects the materiality of the items to which the policies are applied and the high degree of judgment and estimation uncertainty involved.

Impairment of loans and advances

The bank's accounting policy for losses arising from the impairment of customer loans and advances is described in note 2(d). Loan impairment allowances represent management's best estimate of losses incurred in the loan portfolios at the balance sheet date. Management is required to exercise judgment in making assumptions and estimates when calculating loan impairment allowances on both individually and collectively assessed loans and advances.

Collective impairment allowances are subject to estimation uncertainty, in part because it is not practicable to identify losses on an individual loan basis due to the large number of individually insignificant loans in the portfolio. The estimation methods include

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the use of statistical analyses of historical information, supplemented with significant management judgment, to assess whether current economic and credit conditions are such that the actual level of incurred losses is likely to be greater or less than historical experience.

Where changes in economic, regulatory or behavioral conditions result in the most recent trends in portfolio risk factors being not fully reflected in the statistical models, risk factors are taken into account by adjusting the impairment allowances derived solely from historical loss experience.

Risk factors include loan portfolio growth, product mix, unemployment rates, bankruptcy trends, geographical concentrations, loan product features, economic conditions such as national and local trends in housing markets, the level of interest rates, portfolio seasoning, account management policies and practices, changes in laws and regulations, and other influences on customer payment patterns. Different factors are applied in different regions to reflect local economic conditions.

The methodology and the assumptions used in calculating impairment losses are reviewed regularly in the light of differences between loss estimates and actual loss experience. For example, roll rates, loss rates and the expected timing of future recoveries are regularly benchmarked against actual outcomes to ensure they remain appropriate.

For individually assessed loans, judgment is required in determining whether there is objective evidence that a loss event has occurred and, if so, the measurement of the impairment allowance. In determining whether there is objective evidence that a loss event has occurred, judgment is exercised in evaluating all relevant information on indicators of impairment, including the consideration of whether payments are contractually past-due and the consideration of other factors indicating deterioration in the financial condition and outlook of borrowers affecting their ability to pay.

A higher level of judgment is required for loans to borrowers showing signs of financial difficulty in market sectors experiencing economic stress, particularly where the likelihood of repayment is affected by the prospects for refinancing or the sale of a specified asset. For those loans where objective evidence of impairment exists, management determine the size of the allowance required based on a range of factors such as the realizable value of security, the likely dividend available on liquidation or bankruptcy, the viability of the customer's business model and the capacity to trade successfully out of financial difficulties and generate sufficient cash flow to service debt obligations.

The bank might provide loan forbearance to borrowers experiencing financial difficulties by agreeing to modify the contractual payment terms of loans in order to improve the management of customer relationships, maximize collection opportunities or avoid default or repossession. Where forbearance activities are significant, higher levels of judgment and estimation uncertainty are involved in determining their effects on loan impairment allowances. Judgments are involved in differentiating the credit risk characteristics of forbearance cases, including those which return to performing status following renegotiation. Where collectively assessed loan portfolios include significant levels of loan forbearance, portfolios are segmented to reflect the different credit risk characteristics of forbearance cases, and estimates are made of the incurred losses inherent within each forbearance portfolio segments.

The exercise of judgment requires the use of assumptions which are highly subjective and very sensitive to the risk factors, in particular to changes in economic and credit conditions across a large number of geographical areas. Many of the factors have a high degree of interdependency and there is no single factor to which our loan impairment allowances as a whole are sensitive.

Valuation of financial instruments

The bank's accounting policy for determining the fair value of financial instruments is described in note 2(c). The best evidence of fair value is a quoted price in an actively traded principal market. The fair values of financial instruments that are quoted in active markets are based on bid prices for assets held and offer prices for liabilities issued. When a financial instrument has a quoted price in an active market, the fair value of the total holding of the financial instrument is calculated as the product of the number of units and the quoted price. The judgment as to whether a market is active may include, but is not restricted to, consideration of factors such as the magnitude and frequency of trading activity, the availability of prices and the size of bid/offer spreads. The bid/offer spread represents the difference in prices at which a market participant would be willing to buy compared with the price at which they would be willing to sell. Valuation techniques may incorporate assumptions about factors that other market participants would use in their valuations, including:

– the likelihood and expected timing of future cash flows on the instrument. Judgment may be required to assess the counterparty's ability to service the instrument in accordance with its contractual terms.

Future cash flows may be sensitive to changes in market rates;

- selecting an appropriate discount rate for the instrument. Judgment is required to assess what a market participant would regard as the appropriate spread of the rate for an instrument over the appropriate risk-free rate; and
- judgment to determine what model to use to calculate fair value in areas where the choice of valuation model is particularly subjective, for example, when valuing complex derivative products.

A range of valuation techniques is employed, dependent on the instrument type and available market data. Most valuation techniques are based upon discounted cash flow analyses, in which expected future cash flows are calculated and discounted to present value using a discounting curve. Prior to considering credit risk, the expected future cash flows may be known, as would be the case for the fixed leg of an interest rate swap, or may be uncertain and require projection, as would be the case for the floating leg of an interest rate swap. 'Projection' utilizes market forward curves, if available. In option models, the probability of different potential future outcomes must be considered. In addition, the value of some products is dependent on more than one market factor, and in these cases it will typically be necessary to consider how movements in one market factor may affect the other market factors. The model inputs necessary to perform such calculations include interest rate yield curves, exchange rates, volatilities, correlations and prepayment and default rates. For interest rate derivatives with collateralized counterparties and in significant currencies, the bank uses a discounting curve that reflects the overnight interest rate.

The majority of valuation techniques employ only observable market data. However, certain financial instruments are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable, where the measurement of fair value is more judgmental. An instrument in its entirety is classified as valued using significant unobservable inputs if, in the opinion of management, a significant proportion of the instrument's inception profit or greater than 5% of the instrument's valuation is driven by unobservable inputs. 'Unobservable' in this context means that there is little or no current market data available from which to determine the price at which an arm's length transaction would be likely to occur. It generally does not mean that there is no data available at all upon which to base a determination of fair value (consensus pricing data may, for example, be used).

Deferred tax assets

The bank's accounting policy for the recognition of deferred tax assets is described in note 2(h). The recognition of a deferred tax asset relies on an assessment of the probability and sufficiency of future taxable profits, future reversals of existing taxable temporary differences and ongoing tax planning strategies. The most significant judgments relate to expected future profitability and to the applicability of tax planning strategies, including corporate reorganizations.

Defined benefit obligations

The bank's accounting policy for the recognition of defined benefit obligations is described in note 2(g). As part of employee compensation, the bank provides certain employees with pension and other post-retirement benefits under defined benefit plans which are closed to new entrants. In consultation with its actuaries, the bank makes certain assumptions in measuring its obligations under these defined benefit plans as presented in note 4.

The principal actuarial financial assumptions used in calculation of the bank's obligations under its defined plans are in respect of discount rate and rate of pay increase that form the basis for measuring future costs under the plans. The discount rates to be applied to its obligations are determined on the basis of the current average yield of high quality Canadian corporate bonds, with maturities consistent with those of the defined benefit obligations. Assumptions regarding future mortality are based on published mortality tables.

Changes in accounting policy during 2017

The bank has adopted the requirements of IFRS 9 'Financial Instruments' relating to the presentation of gains and losses on financial liabilities designated at fair value from 1 January 2017 in the consolidated financial statements. As a result, the effects of changes in those liabilities' credit risk is presented in other comprehensive income with the remaining effect presented in profit or loss. As permitted by the transitional requirements of IFRS 9, comparatives have not been restated. Adoption increased retained earnings at transition by \$2.7m and decreased profit before tax by \$2.7m and basic and diluted earnings per share by \$0.01 with the opposite effect on other comprehensive income and no effect on net assets.

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There were no other new standards applied in 2017. However, during 2017, the bank adopted a number of interpretations and amendments to standards which had an insignificant effect on these consolidated financial statements.

Future accounting developments

The International Accounting and Standards Board ('IASB') have issued standards on revenue, leases and financial instrument accounting in 2016 and previous years discussed below which may represent significant changes to accounting requirements in the future.

Revenue
In May 2014, the IASB issued IFRS 15 'Revenue from Contracts with Customers' and it is effective for annual periods beginning on or after 1 January 2018. IFRS 15 provides a principles-based approach for revenue recognition, and introduces the concept of recognizing revenue for performance obligations as they are satisfied. The bank will adopt the standard on its mandatory effective date, and the standard will be applied on a retrospective basis, recognizing the cumulative effect, if any, of initially applying the standard as an adjustment to the opening balance of retained earnings. The bank has assessed the impact of IFRS 15 and expects that the standard will have no significant effect, when applied, on our consolidated financial statements.

Financial instruments
In July 2014, the IASB issued IFRS 9 'Financial Instruments', which is the comprehensive standard to replace IAS 39 'Financial Instruments: Recognition and Measurement', and includes requirements for classification and measurement of financial assets and liabilities, impairment of financial assets and hedge accounting.

Classification and measurement
The classification and measurement of financial assets will depend on how these assets are managed (the entity's business model) and the instruments' contractual cash flow characteristics. These factors determine whether the financial assets are measured at amortized cost, fair value through other comprehensive income ('FVOCI') or fair value through profit or loss ('FVPL'). The combined effect of the application of the business model and the contractual cash flow characteristics tests may result in some differences in the population of financial assets measured at amortized cost or fair value compared with IAS 39.

For financial liabilities designated to be measured at fair value, gains or losses relating to changes in the entity's own credit risk are to be included in other comprehensive income.

Impairment
The impairment requirements apply to financial assets measured at amortized cost and FVOCI, and lease receivables and certain loan commitments and financial guarantee contracts. At initial recognition, an impairment allowance (or provision in the case of commitments and guarantees) is required for expected credit losses ('ECL') resulting from default events that are possible within the next 12 months ('12-month ECL'). In the event of a significant increase in credit risk, an allowance (or provision) is required for ECL resulting from all possible default events over the expected life of the financial instrument ('lifetime ECL'). Financial assets where 12-month ECL is recognized are considered to be 'stage 1'; financial assets that are considered to have experienced a significant increase in credit risk are in 'stage 2'; and financial assets for which there is objective evidence of impairment are considered to be in default or otherwise credit impaired are in 'stage 3'.

The assessment of credit risk and the estimation of ECL are required to be unbiased and probability-weighted, and should incorporate all available information relevant to the assessment, including information about past events, current conditions and reasonable and supportable forecasts of economic conditions at the reporting date. In addition, the estimation of ECL should take into account the time value of money. As a result, the recognition and measurement of impairment is intended to be more forward-looking than under IAS 39 and the resulting impairment charge will tend to be more volatile.

Hedge Accounting
The general hedge accounting requirements aim to simplify hedge accounting, creating a stronger link with risk management strategy and permitting hedge accounting to be applied to a greater variety of hedging instruments and risks. However they do not explicitly address macro hedge accounting strategies, which are particularly important for many banks. As a result, IFRS 9 includes an accounting policy choice to remain with IAS 39 hedge accounting.

Transition
With the exception of the provisions relating to the presentation of gains and losses on financial liabilities designated at fair value, which were adopted from

1 January 2017, the requirements of IFRS 9 'Financial Instruments' will be adopted from 1 January 2018. IFRS 9 includes an accounting policy choice to continue IAS 39 hedge accounting, which the bank has exercised, although it will implement the revised hedge accounting disclosures required by the related amendments to IFRS 7 'Financial Instruments: Disclosures'. The classification and measurement and impairment requirements are applied retrospectively by adjusting the opening balance sheet at the date of initial application, with no requirement to restate comparative periods. The bank does not intend to restate comparatives. Adoption is not expected to have a significant impact to our net assets or CET1 ratio.

Leases

In January 2016, the IASB issued IFRS 16 'Leases' with an effective date of annual periods beginning on or after 1 January 2019. IFRS 16 results in lessees accounting for most leases within the scope of the standard in a manner similar to the way in which finance leases are currently accounted for under IAS 17 'Leases'. Lessees will recognize a 'right of use' asset and a corresponding financial liability on the balance sheet. The asset will be amortized over the length of the lease and the financial liability measured at amortized cost. Lessor accounting remains substantially the same as in IAS 17. The bank is currently assessing the impact of IFRS 16 and it is not practicable to quantify the effect as at the date of the publication of these financial statements. Existing operating lease commitments are set out in note 29 of the financial statements.

Regulatory developments

On 12 January 2018, OSFI announced its decision to update the existing capital floor for institutions using advanced approaches for credit risk and operational risk. The current capital floor of 90%, based on the Basel I capital accord, will be replaced by a more risk-sensitive capital floor based on the Basel II framework. It will be implemented effective Q2 2018 with the floor factor transitioned in over three quarters. The floor factor will be set at 70% in Q2 2018, increasing to 72.5% in Q3 2018 and 75% in Q4 2018. The capital floor will be further updated over time as changes are made to OSFI's capital framework. This interim step will improve the risk-sensitivity of the capital floor while ensuring the objectives of the floor continue to be met until the proposed implementation of the Basel III capital floor begins in 2022.

Off-balance sheet arrangements

As part of our banking operations, we enter into a number of off-balance sheet financial transactions that have a financial impact, but may not be recognized in our financial statements. These types of arrangements are contingent and may not necessarily, but in certain circumstances could, involve us incurring a liability in excess of amounts recorded in our consolidated balance sheet. These arrangements include guarantees and letters of credit.

Guarantees and letters of credit

We routinely issue financial and performance guarantees and documentary and commercial letters of credit on behalf of our customers to meet their banking needs. Guarantees are often provided on behalf of customers' contractual obligations, particularly providing credit facilities for customers' overseas trading transactions and in construction financings. Letters of credit are often used as part of the payment and documentation process in international trade arrangements.

Although guarantees and letters of credit are financial instruments, they are considered contingent obligations and the notional amounts are not included in our financial statements, as there are no actual advances of funds. Any payments actually made under these obligations are recorded as loans and advances to our customers. In accordance with accounting standards for financial instruments, we record the fair value of guarantees made on behalf of customers.

For credit risk management purposes, we consider guarantees and letters of credit to be part of our customers' credit facilities, which are subject to appropriate risk management procedures. Guarantees and letters of credit are considered to be part of our overall credit exposure, as set out in the analysis of our loan portfolio of the MD&A.

Further details on off-balance sheet arrangements can be found in note 28.

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Disclosure controls and procedures and internal control over financial reporting

Disclosure controls and procedures are designed to provide reasonable assurance that all relevant information required to be disclosed in reports filed or submitted under Canadian securities laws is recorded, processed, summarized and reported within the time periods specified under those laws. These include controls and procedures that are designed to ensure that information is accumulated and communicated to management, including the Chief Executive Officer ('CEO') and the Chief Financial Officer ('CFO'), to allow timely decisions regarding required disclosure.

Internal control over financial reporting is designed to provide reasonable assurance that the financial reporting is reliable and that consolidated financial statements are prepared in accordance with IFRS. Management is responsible for establishing and maintaining adequate internal control over financial reporting. These controls include those policies and procedures that:

– pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the bank;

– provide reasonable assurance that transactions are recorded as necessary to permit preparation of the consolidated financial statements in accordance with IFRS and that receipts and expenditures of the bank are being made only in accordance with authorizations of management; and

– provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the bank's assets that could have a material effect on the consolidated financial statements.

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis. Furthermore, projections of any evaluation of the effectiveness of internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

During 2017, management has evaluated, under the supervision of and with the participation of the CEO and the CFO, the effectiveness of our disclosure controls and procedures and the design and effectiveness of the internal control over financial reporting as required by the Canadian securities regulatory authorities under National Instrument 52-109. The evaluation of internal control over financial reporting was performed using the framework and criteria established in the *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in May 2013. Based on these evaluations, management has concluded that the design and operation of these disclosure controls and procedures and internal control over financial reporting was effective as at 31 December 2017.

Changes in internal control over financial reporting
There were no changes in our internal control over financial reporting during the year ended 31 December 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Related party transactions

We enter into transactions with other HSBC affiliates, as part of the normal course of business, such as banking and operational services. In particular, as a member of one of the world's largest financial services organizations, we share in the expertise and economies of scale provided by the HSBC Group. We provide and receive services or enter into transactions with a number of HSBC Group companies, including sharing in the cost of development for technology platforms used around the world and benefit from worldwide contracts for advertising, marketing research, training and other operational areas. These related party transactions are on terms similar to those offered to non-related parties and are subject to formal approval procedures that have been approved by the bank's Conduct Review Committee. Further details can be found in note 30.

All of our common shares are indirectly held by HSBC Holdings as a wholly-owned subsidiary.

Risk management

(Certain information within this section, where indicated, forms an integral part of the audited consolidated financial statements)

Risk overview

All of our activities involve, to varying degrees, the measurement, evaluation, acceptance and management of risk or combinations of risks.

As a provider of banking and financial services, we actively manage risk as a core part of our day-to-day activities. We use an enterprise-wide risk management framework at all levels of the organization and across all risk types. It is underpinned by our risk culture and reinforced by the HSBC Values and our Global Standards program.

We continued to maintain a conservative risk profile based on our core philosophy of maintaining balance sheet, liquidity and capital strength by reducing exposure to the most likely areas of stress:

– We regularly assessed our exposures to sovereign debt, bank counter-parties, higher risk countries and sectors and adjusted our risk appetite, limits and exposures accordingly to ensure that overall quality of the portfolio remained strong.

– We used stress testing, both internal and regulatory programs, to assess vulnerabilities and proactively adjusted our portfolios, where required.

– We carried out detailed reviews on our wholesale and retail portfolios.

Risks incurred in our business activities

Our principal banking risks are credit, liquidity and funding, market, operational (including fiduciary, regulatory compliance and financial crime compliance risk), reputational, pension and sustainability risks.

How we manage risk

Managing risk effectively is fundamental to the delivery of our strategic priorities.

Our enterprise-wide risk management framework fosters the continuous monitoring of the risk environment and an integrated evaluation of risks and their interactions. It also ensures that we have a robust and consistent approach to monitoring, managing and mitigating the risks we accept and incur in our activities.

Risk management framework

Key elements of our risk management framework include governance and structure, risk management tools and our risk culture, which together help align employee behaviour with our risk appetite.

Governance and Structure

Robust risk governance and accountability are embedded through an established framework that ensures appropriate oversight of and accountability for the effective management of risk at all levels of the organization and across all risk types.

The Board through its Audit and Risk Committee (‘ARC’) has ultimate responsibility for effective risk management and approves the bank’s risk appetite. Executive accountability for the monitoring, assessment and management of risk resides with the Chief Risk Officer. He is supported by the Risk Management Meeting (‘RMM’) of the senior executives of the bank.

Day-to-day responsibility for risk management is delegated to senior executives with individual accountability for decision making. These individuals are supported by global functions as described under ‘Three Lines of Defence’ below. We use a defined executive risk governance structure to ensure appropriate oversight and accountability of risk, which facilitates the reporting and escalation to the RMM.

Three lines of defence

We use an activity-based three lines of defence model to delineate management accountabilities and responsibilities for risk management and the control environment. This creates a robust control environment in which to manage inherent risks.

Enterprise-wide risk management tools

The Bank uses a range of tools to identify, monitor and manage risk risks. The key enterprise-wide risk tools are summarized below.

Risk appetite

The Risk appetite defines the desired forward-looking risk profile and informs the strategic and financial planning process. It is integrated with other risk management tools such as stress testing and our top and emerging risks report to ensure consistency in risk management practices.

Management's Discussion and Analysis (continued)

The Risk Appetite Statement sets out the aggregated level and risk types that HSBC is willing to accept in order to achieve its business objectives. It is a key component in the management of risk and is reviewed on an ongoing basis, and formally approved by ARC every six months.

The bank's actual performance against the Risk Appetite Statement is reported monthly to the RMM, enabling senior management to monitor the risk profile and guide business activity to balance risk and return. This reporting allows risks to be promptly identified and mitigated and informs risk-adjusted remuneration to drive a strong risk culture.

Risk appetite is dynamically linked with the Strategic and Financial Planning process, defining the desired forward-looking risk profile.

Risk map

The risk map provides a point-in-time view of the risk profile across a suite of risk categories assessing the potential for these risks to have a material impact on the bank's financial results, reputation or sustainability of HSBC's business. Risk stewards assign 'current' and 'projected' risk ratings supported by commentary.

The risks presented on the risk map are regularly assessed against risk appetite, are stress tested and, where thematic issues arise, are considered for classification as top or emerging risks.

Top and emerging risks

We use a top and emerging risks process to provide a forward-looking view of issues with the potential to threaten the execution of our strategy or operations over the medium to long term.

We define a 'top risk' as a thematic issue that forms in six months to one year, and that has the potential to materially affect the financial results, reputation or business model. It may arise across any combination of risk types or businesses. The impact may be well understood by senior management and some mitigating actions may be in place.

An 'emerging risk' is a thematic issue with large unknown components that may form beyond a one-year time horizon and, if it were to materialize, could have a material effect on the long-term strategy, profitability or reputation. Existing mitigation plans are likely to be minimal given the uncertain nature of these risks.

Stress testing

Our stress testing and scenario analysis program examines the sensitivities of our capital plans and unplanned demand for regulatory capital under a number of scenarios and ensures that top and emerging risks are appropriately considered. These scenarios include, but are not limited to, adverse macroeconomic events, failures at country, sector and counterparty levels, geopolitical occurrences and a variety of projected major operational risk events. We take part in regulators' stress tests and conduct our own internal stress tests.

Risk Culture

HSBC has long recognized the importance of a strong risk culture, the fostering of which is a key responsibility of senior executives. Our risk culture is reinforced by HSBC Values and our Global Standards Program and underpins our risk management framework. It is instrumental in aligning the behaviours of individuals with our attitude to assuming and managing risk, which helps to ensure that our risk profile remains in line with our risk appetite.

We use clear and consistent employee communication on risk to convey strategic messages and set the tone from senior leadership. We deploy a suite of mandatory training on critical risk and compliance topics to embed skills and understanding in order to strengthen our risk culture and reinforce the attitude to risk in the behaviour expected of employees as described in our risk policies. Training materials are updated regularly, describing technical aspects of the various risks assumed and how they should be managed effectively. A confidential disclosure line enables staff to raise concerns.

Our risk culture is reinforced by our approach to remuneration. Individual awards, including those for executives, are based on compliance with HSBC Values and the achievement of financial and non-financial objectives which are aligned to our risk appetite and global strategy.

Credit risk

Credit risk is the risk of financial loss if a customer or counterparty fails to meet an obligation under contract. It arises principally from direct lending, trade finance and the leasing business, but also from other products such as guarantees and credit derivatives and from holding assets in the form of debt securities.

Credit risk management

The bank's principal objectives of credit risk management are to:

– maintain a strong culture of responsible lending;

– both partner with and challenge businesses in defining and implementing and continually re-evaluating our risk appetite under actual and scenario conditions; and

– ensure independence in order to support expert scrutiny of credit risks, their costs and their mitigation.

Credit risk is managed in accordance with the bank's credit policy, which is established in consultation with HSBC Group and approved by the ARC. Risk limits and credit authorities are delegated to senior credit management staff. Credit exposures in excess of certain levels or other specific risk attributes are referred for concurrence to HSBC Group to ensure they remain within HSBC Group's global risk limits.

Credit risk rating framework

Under the Basel framework, two principal approaches are available for measuring credit risk: advanced internal ratings based ('AIRB') and Standardized. Most of the bank's credit risk exposure is measured using the AIRB approach.

Under the AIRB approach, the bank's credit risk rating framework incorporates the Probability of Default ('PD') of an obligor and loss severity expressed in terms of Exposure at Default ('EAD') and Loss Given Default ('LGD'). These measures are used to calculate expected loss and minimum capital requirements. They are also used in conjunction with other inputs to inform rating assessments and other risk management decisions such as:

– Credit approval and monitoring: internal IRB models are used in the assessment of customer and portfolio risk in lending decisions;

– Risk appetite: IRB measures are an important element in identifying risk exposure at customer, sector, and portfolio level;

– Pricing: IRB parameters are used in wholesale pricing tools for new transactions and reviews; and

– Economic capital and portfolio management: IRB parameters are used in the economic capital model that has been implemented across HSBC.

For wholesale customer segments (central governments and central banks, financial institutions and corporate customers, and for certain individually assessed personal customers), obligor PD is estimated using a 23-grade Customer Risk Rating ('CRR') scale, of which 21 are non-default ratings representing varying degrees of strength of financial condition, and two are default ratings. The score generated by a credit risk rating model for the obligor is mapped to a corresponding PD and master-scale CRR. The CRR is then reviewed by a credit approver who, taking into account all relevant information, such as most recent events and market data, where available, makes the final decision on the rating. The rating assigned therefore reflects the approver's overall view of the obligor's credit standing and propensity to default.

EAD is estimated to a 12-month forward time horizon and represents the current exposure plus an estimate for future increases in exposure taking into account such factors as available but undrawn facilities, and the realization of contingent exposures post-default.

LGD is based on the effects of facility and collateral structure on outcomes post-default. This includes such factors as the type of customer, the facility seniority, the type and value of collateral, past recovery experience and priority under law. It is expressed as a percentage of EAD. For all retail business, excluding credit cards and the run-off consumer finance portfolio, exposures are segmented into homogeneous pools of accounts with similar risk characteristics. PD, LGD and EAD parameters are estimated for each pool based on observed historical loss data. The segmentation of exposures into different pools is carried out every month based on the characteristics associated with the exposures at the time of monthly review while the risk measures applied to the exposures are based on the measures associated with the pools that have been derived using data over an entire economic cycle.

For credit cards and the run-off consumer finance portfolio, the simplified Standardized approach is applied within the Basel framework to calculate the risk weighting of credit exposures.

Credit portfolio management

The bank places the highest importance on the integrity and quality of its credit portfolio and has stringent policies to avoid undue concentration of risk. Our RMM and ARC meet regularly to review portfolio credit quality, geographic, product and industry distributions,

Management's Discussion and Analysis (continued)

large customer concentrations, adequacy of loan impairment allowances and rating system performance. Policies relating to large customer limits and industry, product and geographic concentration are approved by the ARC, in line with HSBC Group policy.

All new major authorized facilities, 'watch-list' exposures and impaired facilities are also reported quarterly to the ARC. The appetite for credit risk is expressed through portfolio level limits on specific segments, e.g. commercial real estate and energy, as well as through Commercial and Personal Lending Guidelines that conform with HSBC Group guidelines. These are disseminated throughout our business along with various credit manuals. The ARC is advised of any material changes in guidelines through the quarterly monitoring process.

We have a disciplined approach to managing credit risk through ongoing monitoring of all credit exposures at branches, with weaker quality credits being reviewed at more frequent intervals. Problem and impaired loans are identified at an early stage and are actively managed by a separate dedicated Loan Management unit which possesses the relevant expertise and experience.

Exposure to banks and financial institutions involves consultation with a dedicated unit within the HSBC Group that controls and manages these exposures on a global basis. Similarly, cross border risk is also controlled globally by this unit through the imposition of country limits.

A review of all credit matters undertaken by our branch and head office credit managers is completed regularly to ensure all our policies, guidelines, practices, conditions and terms are followed.

We manage real estate lending within well-defined parameters, with an emphasis on relationship and project sponsorship for all new transactions. We are actively managing the exposure level and composition of this portfolio given its concentration in our credit portfolio.

Where we are dependent upon third parties for establishing asset values, consistent and transparent valuations are ensured through maintaining a list of approved professionals that meet our standards.

Top and emerging risks

There is a risk that NAFTA negotiations may result in the termination of the agreement. The bank continues to monitor its exposure to NAFTA sensitive industries.

A high-level review was conducted of the credit portfolio and material exposures, with no material incremental credit impact expected from a NAFTA termination event.

Canadian household debt remains elevated relative to historical levels and customers with high debt levels are more exposed to economic shocks. Experts have raised concerns that housing is overvalued in certain markets and a housing price collapse could have an impact to consumers.

The portfolio and our customers are being closely monitored and managed. In view of the current geopolitical and macroeconomic instability direct and indirect exposures are continuously monitored by country. We have limited exposure to the Eurozone peripheral countries (Greece, Italy, Ireland, Portugal & Spain), Russia and China.

Maximum exposure to credit risk

The following table presents the maximum exposure to credit risk of balance sheet and off-balance sheet financial instruments, before taking into account any collateral held or other credit enhancements. For on-balance sheet financial assets, the exposure to credit risk equals their carrying amount. For financial guarantees, the maximum exposure to credit risk is the maximum amount that we would have to pay if the guarantees were called upon. For loan commitments and other credit-related commitments that are not unconditionally cancellable, the maximum exposure to credit risk is the full amount of the committed facilities.

Maximum exposure to credit risk (Audited)

	Year ended	
	31 December 2017	31 December 2016
	$m	$m
On-balance sheet		
Balances at central bank	**3**	7
Items in the course of collection from other banks	**25**	58
Trading assets	**5,373**	6,288
Treasury and other eligible bills	**835**	421
Debt securities	**4,290**	5,492
Other	**155**	74
Customer trading assets	**93**	301
Derivatives	**3,675**	3,850
Reverse repurchase agreements – non-trading	**6,153**	5,938
Loans and advances held at amortized cost	**51,558**	47,978
Loans and advances to banks	**1,221**	1,071
Loans and advances to customers	**50,337**	46,907
Financial investments – available-for-sale	**22,892**	25,214
Treasury and other similar bills	**290**	295
Debt securities	**22,594**	24,877
Equity securities	**29**	59
Less: Securities not exposed to credit risk	**(21)**	(17)
Other assets		
Customers' liability under acceptances	**4,801**	4,322
Accrued income and other	**1,060**	259
Total on-balance sheet	**95,540**	93,914
Off-balance sheet		
Financial guarantees	**5,582**	5,780
Loan and other credit-related commitments	**40,463**	38,976
Total maximum exposure to credit risk	**141,585**	138,670

Loan portfolio diversity

Concentration of credit risk may arise when the ability of a number of borrowers or counterparties to meet their contractual obligations are similarly affected by external factors. Diversification of credit risk is a key concept by which we are guided.

In assessing and monitoring for credit risk concentration, we aggregate exposures by product type, industry and geographic area as presented in the following tables. Exposures are measured at exposure at default ('EAD') which reflects drawn balances as well as an allowance for undrawn amounts of commitments and contingent exposures, and therefore would not agree to the financial statements.

Management's Discussion and Analysis (continued)

Credit risk portfolio by product type

	EAD at 31 December 2017					
	Drawn $m	*Undrawn* $m	*Repurchase type transactions* $m	*Derivatives* $m	*Other off-balance sheet* $m	*Total* $m
Wholesale portfolio						
Sovereign	**20,108**	**576**	**38**	**129**	**32**	**20,883**
Banks	**4,336**	**29**	**121**	**1,539**	**1,024**	**7,049**
Corporate	**28,797**	**12,358**	**35**	**841**	**2,949**	**44,980**
Total wholesale	**53,241**	**12,963**	**194**	**2,509**	**4,005**	**72,912**
Retail portfolio						
Residential mortgages	**22,674**	**2**	**–**	**–**	**–**	**22,676**
Home equity lines of credit	**1,722**	**1,041**	**–**	**–**	**–**	**2,763**
Personal unsecured revolving loan facilities	**214**	**203**	**–**	**–**	**–**	**417**
Other personal loan facilities	**1,186**	**175**	**–**	**–**	**1**	**1,362**
Other small to medium enterprises loan facilities	**168**	**278**	**–**	**–**	**13**	**459**
Run-off consumer loan portfolio	**100**	**–**	**–**	**–**	**–**	**100**
Retail Master Card	**344**	**–**	**–**	**–**	**–**	**344**
Total retail	**26,408**	**1,699**	**–**	**–**	**14**	**28,121**
Total	**79,649**	**14,662**	**194**	**2,509**	**4,019**	**101,033**

	EAD at 31 December 2016					
	Drawn	*Undrawn*	*Repurchase type transactions*	*Derivatives*	*Other off-balance sheet*	*Total*
	$m	$m	$m	$m	$m	$m
Wholesale portfolio						
Sovereign	22,652	240	1	162	73	23,128
Banks...........................	3,788	11	67	1,133	819	5,818
Corporate.....................	27,549	12,373	27	1,176	3,324	44,449
Total wholesale	53,989	12,624	95	2,471	4,216	73,395
Retail portfolio						
Residential mortgages....	19,835	3	–	–	–	19,838
Home equity lines of credit	1,807	1,029	–	–	–	2,836
Personal unsecured revolving loan facilities.................	237	213	–	–	–	450
Other personal loan facilities.................	1,406	168	–	–	1	1,575
Other small to medium enterprises loan facilities.................	188	219	–	–	16	423
Run-off consumer loan portfolio.................	151	–	–	–	–	151
Retail Master Card	353	–	–	–	–	353
Total retail	23,977	1,632	–	–	17	25,626
Total	77,966	14,256	95	2,471	4,233	99,021

Management's Discussion and Analysis (continued)

Wholesale loan portfolio by geographic area (Audited)

	Year ended	
	EAD 31 December 2017 $m	EAD 31 December 2016 $m
Sovereign		
Canada	**17,017**	18,709
United States of America	**1,259**	2,096
Other	**2,607**	2,323
	20,883	23,128
Banks		
Canada	**4,188**	3,270
United States of America	**1,083**	855
Other	**1,778**	1,693
	7,049	5,818
Corporate		
Canada		
British Columbia	**12,682**	12,094
Ontario	**12,119**	11,559
Alberta	**8,702**	10,098
Quebec	**6,361**	6,143
Saskatchewan and Manitoba	**1,779**	1,765
Atlantic provinces	**998**	894
Territories	**1**	–
United States of America	**1,584**	1,362
Other	**754**	534
	44,980	44,449
Total wholesale loan portfolio exposure	**72,912**	73,395

Wholesale loan portfolio by industry sector (Audited)

	EAD at 31 December 2017					
	Drawn	*Undrawn*	*Repurchase type transactions*	*Derivatives*	*Other off-balance sheet*	*Total*
	$m	**$m**	**$m**	**$m**	**$m**	**$m**
Corporate						
Real estate	**8,123**	**1,862**	**–**	**46**	**467**	**10,498**
Manufacturing	**4,102**	**1,871**	**–**	**30**	**365**	**6,368**
Energy	**2,472**	**2,544**	**–**	**370**	**666**	**6,052**
Wholesale trade	**2,292**	**1,156**	**–**	**22**	**172**	**3,642**
Services	**2,027**	**560**	**–**	**26**	**176**	**2,789**
Construction services	**1,230**	**768**	**–**	**3**	**534**	**2,535**
Transport and storage	**1,760**	**532**	**–**	**33**	**128**	**2,453**
Finance and insurance	**1,066**	**887**	**35**	**213**	**87**	**2,288**
Retail trade	**1,160**	**424**	**–**	**76**	**69**	**1,729**
Mining, logging and forestry	**637**	**719**	**–**	**7**	**183**	**1,546**
Business services	**1,146**	**286**	**–**	**7**	**42**	**1,481**
Automotive	**969**	**320**	**–**	**3**	**40**	**1,332**
Agriculture	**702**	**309**	**–**	**4**	**13**	**1,028**
Hotels and accommodation	**690**	**52**	**–**	**1**	**6**	**749**
Sole proprietors	**421**	**68**	**–**	**–**	**1**	**490**
Government services	**–**	**–**	**–**	**–**	**–**	**–**
Total Corporate	**28,797**	**12,358**	**35**	**841**	**2,949**	**44,980**

	EAD at 31 December 2016					
	Drawn	*Undrawn*	*Repurchase type transactions*	*Derivatives*	*Other off-balance sheet*	*Total*
	$m	$m	$m	$m	$m	$m
Corporate						
Real estate	6,993	1,998	–	76	432	9,499
Manufacturing	3,960	1,710	–	66	350	6,086
Energy	3,004	2,437	–	610	735	6,786
Wholesale trade	2,112	1,235	–	19	171	3,537
Services	2,115	519	–	23	132	2,789
Construction services	1,182	818	–	2	717	2,719
Transport and storage	1,764	561	–	14	142	2,481
Finance and insurance	809	638	27	242	82	1,798
Retail trade	1,023	412	–	84	80	1,599
Mining, logging and forestry	745	692	–	11	353	1,801
Business services	1,231	345	–	11	62	1,649
Automotive	1,027	322	–	4	40	1,393
Agriculture	502	197	–	12	19	730
Hotels and accommodation	707	59	–	2	8	776
Sole proprietors	375	60	–	–	1	436
Government services	–	370	–	–	–	370
Total Corporate	27,549	12,373	27	1,176	3,324	44,449

Management's Discussion and Analysis (continued)

Large customer concentrations

We monitor and manage credit risk from large customer concentrations, which we define as borrowing groups where approved facilities exceed 25% of our regulatory capital base, or $663m at 31 December 2017 (2016: $569m). At 31 December 2017, the aggregate approved facilities from large customers was $26,030m (2016: $30,406m), an average of $1,001m (2016: $1,216m) per customer. The decrease in total approved facilities from large customers is primarily comprised of decreased facilities to Canadian provinces, existing corporate customers and to Canadian chartered banks.

Collateral and other credit enhancements

Although collateral can be an important mitigant of credit risk, it is the bank's practice to lend on the basis of the customer's ability to meet their obligations out of cash flow resources rather than rely on the value of security offered. Depending on the customer's standing and the type of product, some facilities may be unsecured. However, for other lending a charge over collateral is obtained and considered in determining the credit decision and pricing. In the event of default, the bank may utilize the collateral as a source of repayment.

The principal collateral types are as follows:

– in the personal sector, mortgages over residential properties or charges over other personal assets being financed;

– in the commercial and industrial sector, charges over business assets such as land, buildings and equipment, inventory and receivables;

– in the commercial real estate sector, charges over the properties being financed; and

– in the financial sector, charges over financial instruments such as debt and equity securities in support of trading facilities.

Our credit risk management policies include appropriate guidelines on the acceptability of specific classes of collateral or credit risk mitigation. Valuation parameters are updated periodically depending on the nature of the collateral. Full covering corporate guarantees as well as bank and sovereign guarantees are recognized as credit mitigants for capital purposes.

The bank does not disclose the fair value of collateral held as security or other credit enhancements on loans past due but not impaired or individually assessed impaired loans, as it is not practical to do so.

Collateral held as security for financial assets other than loans is determined by the nature of the instrument. Government and other debt securities, including money market instruments, are generally unsecured, with the exception of asset-backed securities and similar instruments, which are secured by pools of financial assets.

The bank has policies in place to monitor the existence of undesirable concentration of the collateral supporting our credit exposures.

Credit quality

Overall credit quality at 31 December 2017 remains strong, recent credit metrics indicates improvements in the quality of the portfolio related to energy and related exposures. This resulted in a $313m decrease in wholesale impaired loans during the year, of which $181m was related to energy and related exposures, in addition to reductions in other sectors. The bank uses the classification as outlined in the following table to measure the quality of its loans and advances.

Credit quality classification

	Wholesale and retail lending		
Quality classification	*External credit rating*	*Internal credit rating*	*12 month probability of default %*
Strong	A– and above	CRR1 to CRR2	0–0.169
Good	BBB+ to BBB–	CRR3	0.170–0.740
Satisfactory	BB+ to B+	CRR4 to CRR5	0.741–4.914
Sub-standard	B to C	CRR6 to CRR8	4.915–99.999
Impaired	Default	CRR9 to CRR10	100

Credit quality of wholesale portfolio (Audited)

	Year ended			Year ended		
	31 December 2017			31 December 2016		
	EAD Drawn[1] **$m**	*EAD Undrawn* **$m**	*EAD Total* **$m**	*EAD Drawn*[1] $m	*EAD Undrawn* $m	*EAD Total* $m
Strong	**29,961**	**3,066**	**33,027**	31,526	2,647	34,173
Good	**16,922**	**6,398**	**23,320**	15,200	5,913	21,113
Satisfactory	**11,279**	**2,862**	**14,141**	11,732	3,431	15,163
Sub-standard	**1,411**	**608**	**2,019**	1,643	585	2,228
Impaired	**376**	**29**	**405**	670	48	718
	59,949	**12,963**	**72,912**	60,771	12,624	73,395

1 *The drawn balance includes drawn, repurchase type transactions, derivatives and off-balance sheet amounts.*

The proportion of exposures categorized as Strong or Good increased from 75% at 31 December 2016 to 77% at 31 December 2017. Impaired loan decreased from $718m as at 31 December 2016 to $405m as at 31 December 2017.

Whilst impaired loans peaked earlier in the year, they subsequently improved to finish the year at $313m lower than 2016. This was mainly due to improvement in the quality of the portfolio related to the energy and transportation and storage sectors.

Credit quality of retail portfolio (Audited)

	Year ended			Year ended		
	31 December 2017			31 December 2016[2]		
	EAD Drawn[1] **$m**	*EAD Undrawn* **$m**	*EAD Total* **$m**	*EAD Drawn*[1] $m	*EAD Undrawn* $m	*EAD Total* $m
Strong	**13,895**	**1**	**13,896**	10,395	1	10,396
Good	**10,157**	**1,308**	**11,465**	10,665	1,142	11,807
Satisfactory	**1,760**	**332**	**2,092**	2,260	453	2,713
Sub-standard	**528**	**58**	**586**	579	36	615
Impaired	**82**	**–**	**82**	95	–	95
	26,422	**1,699**	**28,121**	23,994	1,632	25,626

1 *The drawn balance includes drawn and off-balance sheet amounts.*

2 *Certain prior period amounts have been reclassified to conform with the current period presentation.*

The portfolio was generally stable with the proportion of exposures categorized as Strong or Good increasing from 87% at 31 December 2016 to 90% at 31 December 2017, while impaired loans decreased from $95m to $82m.

Management's Discussion and Analysis (continued)

Mortgages and home equity lines of credit
The bank's mortgage and home equity lines of credit portfolios are considered to be low-risk since the majority are secured by a first charge against the underlying real estate.

The following tables detail how the bank mitigates risk further by diversifying the geographical markets in which it operates as well as benefiting from borrower default insurance. In addition the bank maintains strong underwriting and portfolio monitoring standards to ensure the quality of its portfolio is maintained.

Insurance and geographic distribution[1]	Year ended **31 December 2017**						
	Residential mortgages					*HELOC*[2]	
	Insured[3]		*Uninsured*[3]		*Total*	*Uninsured*	
	$m	**%**	**$m**	**%**	**$m**	**$m**	**%**
British Columbia	**759**	**6**	**12,850**	**94**	**13,609**	**867**	**100**
Western Canada[4]	**289**	**22**	**1,040**	**78**	**1,329**	**220**	**100**
Ontario	**747**	**10**	**6,573**	**90**	**7,320**	**591**	**100**
Quebec and Atlantic provinces	**207**	**18**	**951**	**82**	**1,158**	**94**	**100**
Total at 31 December 2017	**2,002**	**9**	**21,414**	**91**	**23,416**	**1,772**	**100**

Insurance and geographic distribution[1]	Year ended 31 December 2016						
	Residential mortgages					*HELOC*[2]	
	Insured[3]		*Uninsured*[3]		*Total*	*Uninsured*	
	$m	%	$m	%	$m	$m	%
British Columbia	843	7	11,589	93	12,432	871	100
Western Canada[4]	225	19	985	81	1,210	228	100
Ontario	665	11	5,150	89	5,815	602	100
Quebec and Atlantic provinces	155	14	946	86	1,101	106	100
Total at 31 December 2016	1,888	9	18,670	91	20,558	1,807	100

1 *Geographic location is determined by the address of the originating branch.*
2 *HELOC is an abbreviation for Home Equity Lines of Credit, which are lines of credit secured by equity in real estate.*
3 *Insured mortgages are protected from potential losses caused by borrower default through the purchase of insurance coverage, either from the Canadian Housing and Mortgage Corporation or other accredited private insurers.*
4 *Western Canada excludes British Columbia.*

Amortization period[1]	Year ended				
	Residential mortgages				
	Less than 20 years	20–24 years	25–29 years	30–34 years	35 years and greater
Total at 31 December 2017	**20.799%**	**33.033%**	**45.914%**	**0.248%**	**0.005%**
Total at 31 December 2016	24.106%	33.251%	41.895%	0.741%	0.007%

1 *Amortization period is based on the remaining term of residential mortgages.*

Average loan-to-value ratios of new originations[1,2]	Quarter ended	
	Uninsured % LTV[3]	
	Residential mortgages %	HELOC %
British Columbia	**56**	**51**
Western Canada[4]	**67**	**59**
Ontario	**62**	**57**
Quebec and Atlantic provinces	**64**	**61**
Total Canada for the three months ended 31 December 2017	**60**	**55**
Total Canada for the three months ended 31 December 2016	58	50

1 *All new loans and home equity lines of credit were originated by the bank; there were no acquisitions during the period.*

2 *New originations exclude existing mortgage renewals.*

3 *Loan-to-value ratios are simple averages, based on property values at the date of mortgage origination.*

4 *Western Canada excludes British Columbia.*

Potential impact of an economic downturn on residential mortgage loans and home equity lines of credit

The bank performs stress testing on its Retail portfolio to assess the impact of increased levels of unemployment, rising interest rates, reduction in property values and changes in other relevant macro-economic variables. Potential increase in losses in the mortgage portfolio under downturn economic scenarios are considered manageable given the diversified composition of the portfolio, the low Loan to Value in the portfolio and risk mitigation strategies in place.

Loans past due but not impaired

Examples of exposures considered past due but not impaired include loans that have missed the most recent payment date but on which there is no evidence of impairment; loans fully secured by cash collateral; residential mortgages in arrears more than 90 days, but where the value of collateral is sufficient to repay both the principal debt and all potential interest for at least one year; and short-term trade facilities past due more than 90 days for technical reasons such as delays in documentation, but where there is no concern over the creditworthiness of the counterparty.

The aging analysis in the following table includes past due loans on which collective impairment allowances have been assessed, though at their early stage of arrears, there is normally no identifiable impairment.

Management's Discussion and Analysis (continued)

Days past due but not impaired loans and advances (Audited)

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Up to 29 days	**1,577**	675
30–59 days	**125**	61
60–89 days	**63**	56
90–179 days	**–**	5
Over 180 days	**–**	–
	1,765	797

Impaired loans and allowance for credit losses

When impairment losses occur, we reduce the carrying amount of loans through the use of an allowance account with a charge to income. The allowance for credit losses consists of both individually assessed and collectively assessed allowances, each of which is reviewed on a regular basis. The allowance for credit losses reduces the gross value of an asset to its net carrying value.

An allowance is maintained for credit losses which, in management's opinion, is considered adequate but not excessive to absorb all incurred credit-related losses in our portfolio, of both on and off-balance sheet items, including deposits with other regulated financial institutions, loans, acceptances, and other credit-related contingent liabilities, such as letters of credit and guarantees.

Assessing the adequacy of the allowance for credit losses is inherently subjective as it requires making estimates that may be susceptible to significant change. This includes the amount and timing of expected future cash flows and incurred losses for loans that are not individually identified as being impaired.

Individually significant accounts are treated as impaired as soon as there is objective evidence that an impairment loss has been incurred. The criteria used to determine that there is objective evidence include:

- known cash flow difficulties experienced by the borrower;
- past-due contractual payments of either principal or interest;
- breach of loan covenants or conditions;
- the probability that the borrower will enter bankruptcy or other financial realization; and
- a significant downgrading in credit rating by an external credit rating agency.

Individually assessed impairment allowances are recorded on these individual accounts on an account-by-account basis to reduce their carrying value to estimated realizable amount.

The collectively assessed impairment allowance is our best estimate of incurred losses in the portfolio for those individually significant accounts for which no evidence of impairment has been individually identified or for high-volume groups of homogeneous loans that are not considered individually significant. In determining an appropriate level of collectively assessed impairment, we apply the following methodologies:

- *Business and government* – For these loans, the underlying credit metrics including probability of default ('PD'), loss given default ('LGD') and exposure at default ('EAD'), for each customer are derived from the bank's internal rating system as a basis for the collectively assessed impairment allowance. In order to reflect the likelihood of a loss event not being identified and assessed an emergence period assumption is applied which reflects the period between a loss occurring and its identification. The emergence period is estimated by management for each identified portfolio. The factors that may influence this estimation include economic and market conditions, customer behaviour, portfolio management information, credit management techniques and collection and recovery experiences in the market. The emergence period is assessed empirically on a periodic basis and may vary over time as these factors change. The bank also incorporates a quantitative management judgment framework which includes internal and external indicators, to establish an overall collective impairment allowance consistent with recent loss experience and uncertainties in the environment.
- *Residential mortgages* – Historic average loss rates are used to determine the collective provision for

these portfolios. Management may consider other current information should they believe that these historic loss rates do not fully reflect incurred losses in these portfolios.

– *Consumer finance and other consumer loans* – Analysis of historical delinquency movements by product type is used as the basis for the collectively assessed impairment allowance for these loan portfolios. By tracking delinquency movement among pools of homogeneous loans, an estimate of incurred losses in each pool is determined. These estimates can be amended should management believe they do not fully reflect incurred losses. This judgemental adjustment employs an established framework and references both internal and external indicators of credit quality.

In addition to the methodologies outlined above, the balance of the collectively assessed impairment allowance is also analyzed as a function of risk-weighted assets and referenced to the allowances held by our peer group.

Impaired financial assets (Audited)

	Year ended	
	EAD 31 December 2017 $m	EAD 31 December 2016 $m
Impaired wholesale portfolio[1]		
Manufacturing	**95**	104
Energy	**87**	270
Construction services	**78**	65
Real estate	**52**	68
Wholesale trade	**31**	26
Business services	**22**	24
Transport and storage	**14**	136
Services	**6**	6
Retail trade	**6**	3
Finance and insurance	**6**	1
Sole proprietors	**3**	4
Mining, logging and forestry	**2**	3
Agriculture	**1**	2
Automotive	**1**	1
Hotels and accommodation	**1**	6
Total impaired wholesale portfolio	**405**	719
Impaired retail portfolio[2]		
Residential mortgages	**55**	58
Other retail loans	**27**	37
Total impaired retail portfolio	**82**	95
Total impaired financial assets	**487**	814

1 *Includes $20m (2016: $148m) of impaired acceptances, letters of credit and guarantees.*

2 *Certain prior period amounts have been reclassified to conform with the current period presentation.*

Management's Discussion and Analysis (continued)

Impairment allowances (Audited)

	Year ended 31 December 2017 $m	31 December 2016 $m
Gross loans and advances to customers		
Individually assessed impaired loans and advances[1] (A)	**365**	648
Collectively assessed loans and advances (B)	**50,255**	46,698
– impaired loans and advances[1]	**25**	36
– non-impaired loans and advances	**50,230**	46,662
Total gross loans and advances to customers (C)	**50,620**	47,346
Less: impairment allowances (c)	**283**	439
– individually assessed (a)	**149**	252
– collectively assessed (b)	**134**	187
Net loans and advances to customers	**50,337**	46,907
Individually assessed impaired loans and advances coverage		
– (a) as a percentage of (A)	**40.8%**	38.9%
Collectively assessed loans and advances coverage		
– (b) as a percentage of (B)	**0.3%**	0.4%
Total loans and advances coverage		
– (c) as a percentage of (C)	**0.6%**	0.9%

1 *Includes restructured loans with a higher credit quality than 'impaired' and for which there is insufficient evidence to demonstrate a significant reduction in the risk of non-payment of future cash flows, or the absence of other indicators of impairment.*

Movement in impairment allowances and provision for credit losses (Audited)

	Year ended 31 December 2017			
	Customers individually assessed **$m**	*Customers collectively assessed* **$m**	*Other credit risk provisions* **$m**	*Total* **$m**
Opening balance at the beginning of the year	**252**	**187**	**89**	**528**
Movement				
Loans and advances written off net of recoveries of previously written off amounts[1]	**(72)**	**(4)**	**–**	**(76)**
(Recovery)/Charge to income	**(14)**	**(49)**	**(45)**	**(108)**
Interest recognized on impaired loans and advances	**(18)**	**–**	**–**	**(18)**
Other movements	**1**	**–**	**(2)**	**(1)**
Closing balance at the end of the year	**149**	**134**	**42**	**325**

1 *Recovered $15m (2016: $17m) of loans and advances written off in prior periods.*

	Year ended 31 December 2016			
	Customers individually assessed	*Customers collectively assessed*	*Other credit risk provisions*	*Total*
	$m	$m	$m	$m
Opening balance at the beginning of the year	253	258	105	616
Movement				
Loans and advances written off net of recoveries of previously written off amounts[1]	(160)	(15)	–	(175)
(Recovery)/Charge to income	184	(60)	(17)	107
Interest recognized on impaired loans and advances	(20)	–	–	(20)
Other movements	(5)	4	1	–
Closing balance at the end of the year	252	187	89	528

1 *Recovered $15m (2016: $17m) of loans and advances written off in prior periods.*

Derivative portfolio

The credit equivalent amount of derivative exposure comprises the current replacement cost of positions plus an allowance for potential future fluctuation of interest rate or foreign exchange rate derivative contracts. We enter into derivatives primarily to support our customers' requirements and to assist us in the management of assets and liabilities, particularly relating to interest and foreign exchange rate risks, as noted above.

Credit equivalent amount of our derivative portfolio (Audited)[1]

	Year ended	
	31 December 2017	31 December 2016
	$m	$m
Interest rate contracts	**918**	723
Foreign exchange contracts	**1,575**	1,722
Commodity contracts	**16**	27
Net credit equivalent amount	**2,509**	2,472

1 *A more detailed analysis of our derivative portfolio is presented in note 11.*

Liquidity and funding risk management framework

The objective of our liquidity and funding risk management framework is to ensure that all foreseeable funding commitments, including deposit withdrawals, can be met when due, and that access to the wholesale markets is coordinated and cost-effective. It is designed to allow us to withstand very severe liquidity stresses and be adaptable to changing business models, markets and regulations.

The ARC is responsible for defining the bank's liquidity risk tolerances within the HSBC Group's liquidity risk framework, which mandates that each site manages its liquidity and funding on a self-sustaining basis. The ARC also reviews and approves the bank's liquidity and funding policy and is responsible for its oversight.

The bank's Asset and Liability Committee ('ALCO') is responsible for the development of policies and practices to manage liquidity and funding risk. Its mandate terms of reference is established by HSBC Group policy, the ARC, and the bank's Executive Committee.

ALCO is responsible for the oversight of liquidity and funding risk management, establishing liquidity risk parameters, and monitoring metrics against risk appetite, funding costs, and early warning indicators of a liquidity stress. ALCO is also responsible for ensuring the operational effectiveness of the bank's contingency funding plan.

The management of liquidity and funding is carried out by our Balance Sheet Management ('BSM') department in accordance with practices and limits

Management's Discussion and Analysis (continued)

approved by ALCO, the ARC and HSBC Group. Compliance with policies is monitored by ALCO.

The bank has an internal liquidity and funding risk management framework which aims to allow it to withstand very severe liquidity stresses. It is designed to be adaptable to changing business models, markets and regulations. We continue to monitor liquidity and funding risk within our stated risk appetite and management framework.

Our liquidity and funding risk management framework is delivered using the following key aspects:

– liquidity to be managed on a stand-alone basis with no implicit reliance on HSBC Group or central banks;
– minimum liquidity coverage ratio ('LCR') requirement;
– minimum net stable funding ratio ('NSFR') requirement;
– depositor concentration limit;
– three-month and twelve-month cumulative rolling term contractual maturity limits covering deposits from banks, deposits from non-bank financial institutions and securities issued;
– annual individual liquidity adequacy assessment;
– minimum LCR requirement by currency;
– intra-day liquidity;
– liquidity funds transfer pricing; and
– forward-looking funding assessments.

The internal liquidity and funding risk management framework and the risk limits were approved by ARC.

Our annual individual liquidity adequacy assessment process aims to:

– identify risks that are not reflected in the bank's internal liquidity and funding risk management framework, and, where required, to assess additional limits required locally; and
– validate the risk tolerance by demonstrating that reverse stress testing scenarios are acceptably remote and ensuring vulnerabilities have been assessed through the use of severe stress scenarios.

Liquidity regulation

In accordance with OSFI's Liquidity Adequacy Requirements guideline, which incorporates Basel liquidity standards, the bank is required to maintain a LCR above 100% as well as monitor the Net Cumulative Cash Flow. The LCR estimates the adequacy of liquidity over a 30 day stress period while the Net Cumulative Cash Flow calculates a horizon for net positive cash flows in order to capture the risk posed by funding mismatches between assets and liabilities. As at 31 December 2017, the bank was compliant with both requirements.

The bank's LCR is summarized in the following table. For the quarter ended 31 December 2017, the bank's average LCR of 137% is calculated as the ratio of the stock of High-Quality Liquid Assets (HQLA) to the total net stressed cash outflows over the next 30 calendar days. Compared with the prior year, the average LCR decreased to 137% from 160% mainly due to the deployment of surplus liquidity to fund loan growth during the year.

OSFI liquidity coverage ratio[1]

	Average for the three months ended[1]	
	31 December 2017	31 December 2016
Total HQLA[2] ($m)	**23,594**	27,310
Total net cash outflows[2] ($m)	**17,185**	17,110
Liquidity coverage ratio (%)	**137**	160

1 *The data in this table has been calculated using averages of the three month-end figures in the quarter. Consequently, the LCR is an average ratio for the three months of the quarter and might not equal the LCR ratios calculated dividing total weighted HQLA by total weighted net cash outflows.*

2 *These are weighted values and are calculated after the application of the weights prescribed under the OSFI LAR Guideline for HQLA and cash inflows and outflows.*

As a basis to determine the bank's stable funding requirement, the bank calculates NSFR according to Basel Committee on Banking Supervision publication number 295, pending its implementation in Europe and Canada expected in 2019. The NSFR requires institutions to maintain sufficient stable funding relative to required stable funding, and reflects a bank's long-term funding profile (funding with a term of more than a year). It is designed to complement the LCR.

Liquid assets

Liquid assets are held and managed on a stand-alone operating entity basis. Most are held directly by the BSM department, primarily for the purpose of managing liquidity risk in line with the internal liquidity and funding risk management framework. The liquid asset buffer may also include securities in held-to-maturity portfolios. To qualify as part of the liquid asset buffer, held-to-maturity portfolios must have a deep and liquid repo market in the underlying security. Liquid assets also include any unencumbered liquid assets held outside BSM departments for any other purpose. The internal liquidity and funding risk management framework gives ultimate control of all unencumbered assets and sources of liquidity to BSM.

The table below shows the estimated liquidity value unweighted (before assumed haircuts) of assets categorized as liquid and used for the purpose of calculating the OSFI LCR metric. The level of liquid assets reported reflects the stock of unencumbered liquid assets at the reporting date, using the regulatory definition of liquid assets. The decrease in liquid assets was mainly due to the deployment of surplus liquidity to fund loan growth during the year.

Liquid assets[1]

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Level 1	**20,307**	24,320
Level 2a	**4,491**	3,964
Level 2b	**119**	35
	24,917	28,319

1 *The liquid asset balances stated here are as at the above dates (spot rate) and are unweighted and therefore do not match the liquid asset balances stated in the LCR ratio calculations which are the average for the quarter and are weighted.*

Sources of funding

Current accounts and savings deposits, payable on demand or on short notice, form a significant part of our funding. We place considerable importance on maintaining the stability and growth of these deposits, which provide a diversified pool of funds.

We also access wholesale funding markets to maintain a presence in local money markets and to optimize the funding of asset maturities not naturally matched by core deposit funding. As part of our wholesale funding arrangements we use a number of programs to raise funds so that undue reliance is not placed on any one source of funding.

No reliance is placed on unsecured money market wholesale funding as a source of core funding. Only wholesale funding with a residual term to maturity of one year or greater is counted towards the core funding base. In addition, our stress testing assumptions require an equivalent amount of liquid assets to be held against wholesale funding maturing within the relevant stress testing horizon.

Management's Discussion and Analysis (continued)

Cash flows payable by the bank under financial liabilities by remaining contractual maturities (Audited)

	Year ended 31 December 2017				
	On demand and due within 3 months **$m**	*Due between 3 and 12 months* **$m**	*Due between 1 and 5 years* **$m**	*Due after 5 years* **$m**	*Total* **$m**
Deposits by banks	**1,696**	**–**	**–**	**–**	**1,696**
Customer accounts	**48,184**	**7,587**	**1,428**	**–**	**57,199**
Repurchase agreements	**4,617**	**–**	**–**	**–**	**4,617**
Trading liabilities	**3,701**	**–**	**–**	**–**	**3,701**
Financial liabilities designated at fair value	**–**	**–**	**–**	**–**	**–**
Derivatives	**3,343**	**672**	**1,804**	**8**	**5,827**
Debt securities in issue	**652**	**1,253**	**7,902**	**1,778**	**11,585**
Subordinated liabilities[1]	**9**	**27**	**141**	**1,255**	**1,432**
Other financial liabilities	**6,143**	**423**	**1,584**	**–**	**8,150**
	68,345	**9,962**	**12,859**	**3,041**	**94,207**
Loan commitments	**40,414**	**34**	**–**	**16**	**40,464**
Financial guarantee contracts	**143**	**1,528**	**408**	**15**	**2,094**
Year ended 31 December	**108,902**	**11,524**	**13,267**	**3,072**	**136,765**

1 *Excludes interest payable exceeding 15 years.*

Certain balances in the above table will not agree directly to the balances in the consolidated balance sheet as the table incorporates cash flows for both principal and interest, on an undiscounted basis, except for derivatives and trading liabilities.

Cash flows payable in respect of deposits are primarily contractually repayable on demand or on short notice. However, in practice, short-term deposit balances remain stable as cash inflows and outflows broadly match.

Trading derivatives and trading liabilities have been included in the 'On demand and due within 3 months' time bucket, and not by contractual maturity, because trading liabilities are typically held for short periods of time. The undiscounted cash flows on hedging derivative liabilities are classified according to their contractual maturity.

Furthermore, loan commitments and financial guarantee contracts are not recognized on the balance sheet. The undiscounted cash flows potentially payable under financial guarantee contracts are classified on the basis of the earliest date they can be drawn down.

Encumbered assets

In the normal course of business, the bank will pledge or otherwise encumber assets. The pledging of assets will occur to meet the bank's payments and settlement system obligations, as security in a repurchase transaction, to support secured debt instruments or as margining requirements. Limits are in place to control such pledging.

The bank actively monitors its pledging positions. Encumbered assets are not counted towards the bank's liquid assets used for internal stress testing scenarios. We further estimate the impact of credit rating downgrade triggers, and exclude the estimated impact from liquid assets within the bank's liquidity stress testing scenarios.

Contractual obligations

As part of our normal business operations we are contractually obliged to make certain liability payments. Amounts included in unsecured long-term funding in the following table are wholesale term deposits with an original term to maturity of more than one year, based on contractual repayment dates. Also included are obligations related to commitments not recorded in the consolidated balance sheet, such as those relating to operating leases.

Summary of future contractual payments

	Year ended			
	31 December 2017			
	Less than 1 year **$m**	*1 to 5 years* **$m**	*After 5 years* **$m**	*Total* **$m**
Subordinated liabilities	**36**	**141**	**1,255**	**1,432**
Operating leases	**47**	**115**	**27**	**189**
Committed purchase obligations	**104**	**122**	**6**	**232**
Unsecured long-term funding	**1,203**	**6,696**	**1,604**	**9,503**
Total contractual obligations	**1,390**	**7,074**	**2,892**	**11,356**

Committed purchase obligations include long-term arrangements for the provision of technology and data processing services by HSBC Group companies. Not included in the table are any commitments relating to customers utilizing undrawn portions of their loan facilities.

As a result of our ongoing funding and liquidity management process, which we monitor regularly, we expect to be able to meet all of our funding and other commitments in the normal course of our operations.

Market risk

Market risk is the risk that movements in market risk factors, including foreign exchange rates and commodity prices, interest rates, credit spreads and equity prices, will adversely affect our income or the value of our assets and liabilities.

Market risk management

Market risk management is independent of the business and is responsible for establishing the policies, procedures and limits that align with the risk appetite of the bank. The objective of market risk management is to identify, measure and control market risk exposures in order to optimize return on risk and remain within the bank's risk appetite.

We separate exposures to market risk into trading and non-trading portfolios. Trading portfolios include those positions arising from market-making and other positions designated as held-for-trading.

Market risk is managed in accordance with policies and risk limits set out by the RMM and approved by the Board as well as centrally by HSBC Group Risk Management. We set risk limits for each of our trading operations dependent upon the size, financial and capital resources of the operations, market liquidity of the instruments traded, business plan, experience and track record of management and dealers, internal audit ratings, support function resources and support systems. Risk limits are reviewed and set by the RMM on an annual basis at a minimum.

We use a range of tools to monitor and limit market risk exposures. These include: present value of a basis point, Value at Risk ('VaR'), foreign exchange exposure limits, maximum loss limits, credit spread limits, and issuer limits.

Value at Risk

VaR is a technique that estimates the potential losses that could occur on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence.

The VaR models used are predominantly based on historical simulation. These models derive plausible future scenarios from past series of recorded market rates and prices, taking account of inter-relationships between different markets and rates such as interest rates and foreign exchange rates. The models also incorporate the effect of option features on the underlying exposures.

The historical simulation models used incorporate the following features:

– potential market movements are calculated with reference to data from the past two years;

– historical market rates and prices are calculated with reference to foreign exchange rates, credit spreads, interest rates, equity prices and the associated volatilities;

– VaR is calculated to a 99% confidence level; and

– VaR is calculated for a one-day holding period.

Statistically, we would expect to see losses in excess of VaR only one percent of the time over a one-year period. Although a valuable guide to risk, VaR should

Management's Discussion and Analysis (continued)

always be viewed in the context of its limitations:

– the use of historical data as a proxy for estimating future events may not encompass all potential events, particularly those which are extreme in nature;

– the use of a one-day holding period assumes that all positions can be liquidated or hedged in one day, which may not fully reflect the market risk arising at times of severe illiquidity, when a one day holding period may be insufficient to liquidate or hedge all positions fully;

– the use of a 99% confidence level, by definition, does not take into account losses that might occur beyond this level of confidence;

– VaR is calculated on the basis of exposures outstanding at the close of business and therefore does not necessarily reflect intra-day exposures; and

– VaR is unlikely to reflect loss potential on exposures that only arise under significant market moves.

VaR disclosed in the following tables and graph is the bank's total VaR for both trading and non-trading books and remained within the bank's limits.

Total VaR (at period ends and in average) decreased from 2016 to 2017 mainly due to a decrease in interest rate risk in the non-trading activities. Over the same period, the average non-trading VaR decreased by $2.2m to $29.8m. The lowest non-trading VaR was observed on 31 December 2017 at $12.3m, a $28.7m decrease compared to 31 December 2016. The average trading VaR decreased slightly by $0.2m from 2016 to 2017 due to a decrease in credit spread risk.

Total VaR

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Year-end	**12.5**	41.4
Average	**29.6**	32.3
Minimum	**12.5**	16.6
Maximum	**43.1**	45.9

Non-trading VaR

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Year-end	**12.3**	41.0
Average	**29.8**	32.0
Minimum	**12.3**	15.3
Maximum	**41.5**	46.0

Trading VaR (by risk type)[1]

	Foreign exchange and commodity **$m**	*Interest rate* **$m**	*Equity* **$m**	*Credit Spread* **$m**	*Portfolio diversifi-cation*[2] **$m**	*Total*[4] **$m**
January–December 2017						
At year end	**–**	**2.5**	**–**	**0.5**	**(0.4)**	**2.6**
Average	**–**	**1.4**	**–**	**0.5**	**(0.4)**	**1.5**
Minimum[3]	**–**	**0.8**	**–**	**0.2**		**0.9**
Maximum[3]	**0.1**	**2.9**	**–**	**1.7**		**3.0**
January–December 2016[5]						
At year end	–	1.1	–	0.4	(0.4)	1.1
Average	–	1.4	–	0.8	(0.5)	1.7
Minimum[3]	–	0.5	–	0.2		1.0
Maximum[3]	0.5	2.4	–	1.3		2.5

1 *Trading portfolios comprise positions arising from the market-making of financial instruments and customer-driven derivatives positions.*

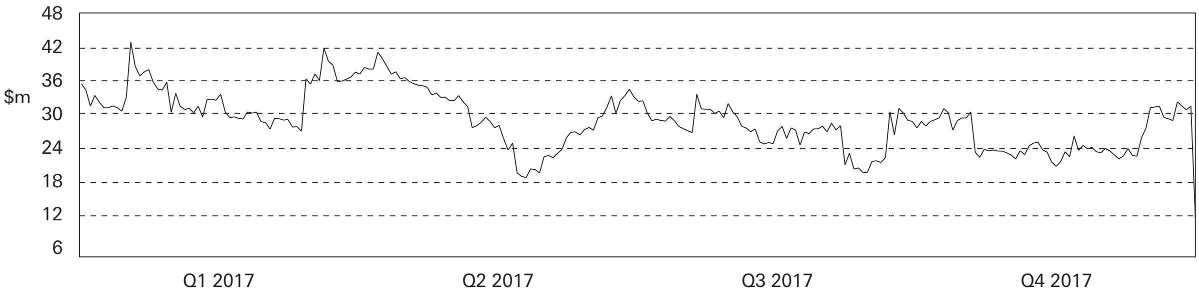
2 *Portfolio diversification is the market risk dispersion effect of holding a portfolio containing different risk types. It represents the reduction in unsystematic market risk that occurs when combining a number of different risk types, for example, interest rate, equity and foreign exchange, together in one portfolio. It is measured as the difference between the combined total VaR and the sum of the VaRs by individual risk type. A negative number represents the benefit of portfolio diversification.*

3 *As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit for these measures. Some small differences in figures presented are due to rounding.*

4 *The total VaR is non-additive across risk types due to diversification effects.*

5 *Certain prior period amounts have been reclassified to conform with the current period presentation.*

Daily total VaR – 1 year history of daily figures



Structural interest rate risk

Interest rate risk is the risk of an adverse impact to earnings or capital due to changes in market interest rates. Structural interest rate risk is that which originates from the bank's non-trading assets and liabilities and shareholder's funds.

There are three main sub-categories of structural interest rate risk. Interest rate mismatch risk arises when there are differences in term to maturity or repricing of our assets and liabilities, both on- and off-balance sheet. Basis risk arises from the relative changes in interest rates for financial instruments that have similar tenors but are priced using different interest rate indices. Option risk arises from optionality embedded in products features which allow customers to alter cash flows, such as scheduled maturities or repricing dates.

The ARC is responsible for setting the structural interest rate risk policy and risk limits. ALCO is responsible for ongoing governance and oversight.

We use a variety of cash and derivative instruments to manage our interest rate risk within prescribed limits. We use derivatives to modify the interest rate characteristics of related balance sheet instruments and to hedge anticipated exposures when market conditions are considered beneficial.

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The risk is measured based on contractual re-pricing, as well as incorporating embedded optionality of early redemption, prepayment or re-pricing (such as redeemable deposit products, mortgages with prepayment options and fixed rate mortgage commitments). Non-maturity products are laddered out over an assumed maturity profile, based on historical behaviour.

We use two primary interest rate risk metrics to monitor and control the risk:

– Economic value of equity sensitivity – the change in the notional equity (or market) value of the non-trading portfolio under different interest rate scenarios, with the balance sheet valued on a run off basis.

– Earnings at risk sensitivity – the change in projected net interest income over the next 12 months across a range of interest rate scenarios based on a static balance sheet.

The following table shows structural interest rate sensitivities; earnings at risk is the impact over the next 12 months whereas economic value of equity is a balance sheet valuation on a run off basis. At 31 December 2017, an immediate -100 basis points shock would have a negative impact to earnings of $115 million, an increase from $89 million last year. An immediate +100 basis points shock at 31 December 2017 would have a negative impact to the bank's economic value of equity of $296 million, slightly down from $303 million last year. Relative to last year, the increased earnings sensitivity to a decline in rates is primarily due to higher prevailing rates, which means rates can fall further before reaching a modelled floor.

Sensitivity of structural interest rate risk in the non-trading portfolio
(Before-tax impact resulting from an immediate and sustained shift in interest rates)

	Year ended			
	31 December 2017		31 December 2016	
	Economic value of equity **$m**	*Earnings at risk* **$m**	*Economic value of equity* $m	*Earnings at risk* $m
100 basis point increase	**(296)**	**94**	(303)	87
100 basis point decrease	**252**	**(115)**	313	(89)

Reputational risk

Reputational risk relates to stakeholders' perceptions, whether based on fact or otherwise. Stakeholders' expectations are constantly changing and thus reputational risk is dynamic. As a global bank, HSBC has an unwavering commitment to operating to the high standards we have set for ourselves in every jurisdiction. Any lapse in standards of integrity, compliance, customer service or operating efficiency represents a potential reputational risk.

Each line of business is required to have a 'Reputational Risk and Client Selection' committee for the purpose of addressing reputational risk issues and escalating where appropriate.

Reputational risks are considered and assessed by the ARC and the RMM during the formulation of policy and the establishment of our standards. Our policies set out our risk appetite and operational procedures for all areas of reputational risk, including financial crime prevention, regulatory compliance, conduct-related concerns, customer impact, environmental impacts and employee relations.

Operational risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

Operational risk is relevant to every aspect of our business, and covers a wide spectrum of issues, in particular legal, regulatory compliance, financial crime and security and fraud. Losses arising from breaches of regulation and law, unauthorized activities, error, omission, inefficiency, fraud, systems failure or external events all fall within the definition of operational risk.

All staff are required to manage operational risks of the business and operational activities for which they are responsible.

Operational risk management framework

HSBC's Operational Risk Management Framework ('ORMF') is the overarching approach for managing operational risk, the purpose of which is to:

– Identify and manage our non-financial operational risks in an effective manner.

- Remain within the operational risk appetite, which helps the organization understand the level of risk it is willing to accept.
- Drive forward-looking risk awareness and assist management focus.

We use the 'three lines of defence' model to delineate management accountabilities and responsibilities for risk management and the control environment. This creates a robust control environment in which to manage inherent risks. The model underpins our approach to risk management by driving responsibility, encouraging collaboration, and enabling efficient coordination of risk and control activities. The three lines are summarized below:

- The first line of defence owns the risks and is responsible for identifying, recording, reporting and managing them, and ensuring that the right controls and assessments are in place to mitigate them.
- The second line of defence sets the policy and guidelines for managing the risks and provides advice, guidance and challenge to the first line of defence on effective risk management.
- The third line of defence is our Internal Audit function, which provides independent and objective assurance on the adequacy of the design and operational effectiveness of the Risk Management Framework control governance process.

Business managers are responsible for maintaining an acceptable level of internal control commensurate with the scale and nature of operations, and for identifying and assessing risks, designing controls and monitoring the effectiveness of these controls. The ORMF helps managers to fulfill these responsibilities by defining a standard risk assessment methodology and providing a tool for the systematic reporting of operational loss data.

The Operational Risk Management function, reporting to the Chief Risk Officer, provides end-to-end oversight, challenge and review of the ORMF.

Compliance risk

Compliance risk is the risk that we fail to observe the letter and spirit of all relevant laws, codes, rules, regulations and standards of good market practice, and incur fines or penalties and suffer damage to our business as a consequence. We have committed to adopt and enforce industry leading compliance standards and have put in place a robust compliance risk management infrastructure to help us achieve this.

Regulatory Compliance

Regulatory Compliance is the Risk steward for regulatory risk which captures those risks associated with breaching our duty to clients and other counterparties, inappropriate market conduct and breaching other regulatory standards. It provides independent, objective oversight and challenge and promotes a compliance-oriented culture, supporting the business in delivering fair outcomes for customers, maintaining the integrity of financial markets and achieving HSBC's strategic objectives.

Financial crime risk

Financial Crime Risk is a global function bringing together all areas of financial crime risk management at HSBC and is dedicated to implementing the most effective global standards to combat financial crime. The function enables us to build on our achievements in managing financial crime risk effectively across the bank and across all financial crime types including money laundering, fraud, sanctions evasion; as well as providing controls to support robust anti-bribery and corruption compliance. We continue to embed and update policies and procedures, introduce new technology solutions and support a bank wide culture focused on the effective management and mitigation of financial crime risk.

Security risk

Security Risk includes: Physical Security Risk, Information Security Risk, and Contingency Risk.

The Security Risk function is responsible for ensuring that effective protection measures are in place to mitigate risks to operations resulting from a variety of threats in the Physical Security, Business Continuity/Contingency and Information Security areas, and is available to support any part of the business.

Information Security Risk oversees and provides guidance to businesses and functions in regards to bank information assets against the risk of loss, operational discontinuity, misuse, unauthorized disclosure, inaccessibility and damage. Information Security Risk covers all information processes, regardless of whether they involve people and technology or relationships with trading partners, customers and third parties. Information Security Risk addresses information protection, confidentiality, availability and integrity throughout the life cycle of information and its use within the bank. The security of our information and technology infrastructure is crucial for maintaining our banking applications and processes while protecting our customers and the HSBC brand.

Management's Discussion and Analysis (continued)

The Contingency Risk Management function is responsible for ensuring that our businesses and functions have the resilience to maintain operational continuity in the face of major disruptive events. Within this wider risk, Contingency Risk Management oversees and provides guidance to businesses and functions to pre-plan and consider strategies to minimize the adverse effects of major business disruption against a range of actual or emerging risks. The pre-planning concentrates on the protection of customer services, our staff, reputation, revenue generation and the integrity of data and documents. Each business and function has its own recovery plan, which is developed following the completion of a Business Impact Analysis. This determines how much time the business could sustain an outage before the level of losses becomes unacceptable, i.e. its criticality. These plans are reviewed and tested every year by each business and function.

Physical Security Risk develops practical physical, electronic, and operational countermeasures to ensure that the people, property and assets managed by the bank are protected from crime, theft, attack and groups hostile to HSBC. Physical Security is responsible for protecting our facilities and contents through robust policies, procedures and guidelines. Operating in coordination with key stakeholders, the team manages and implements a comprehensive physical security strategy ensuring consistent application of standardized practices across existing and planned facilities including the design, implementation and management of operational, technological and physical controls to mitigate physical security risk.

Fiduciary risk

Fiduciary risk is the risk associated with failing to offer services honestly and properly to clients where we act in a fiduciary capacity. We define a fiduciary duty as any duty where we hold, manage, oversee or have responsibilities for assets of a third party that involves a legal and/or regulatory duty to act with the highest standard of care and with utmost good faith. A fiduciary must make decisions and act in the best interests of the third parties and must place the wants and needs of the client first, above the needs of the organization.

Fiduciary risk is managed within the designated businesses via a policy framework and monitoring of key indicators. The bank's principal fiduciary businesses are HSBC Global Asset Management (Canada) Limited and HSBC Private Wealth Services (Canada) Inc. which are exposed to fiduciary risks via investment management activities on behalf of clients.

Factors that may affect future results

The risk management section of the MD&A describes the most significant risks to which the bank is exposed and if not managed appropriately could have a material impact on our future financial results. This section outlines additional factors which may affect future financial results. Please be aware that the risks discussed below, many of which are out of our control, are not exhaustive and there may be other factors that could also affect our results.

General economic and market conditions

Factors such as the general health of capital and/or credit markets, including liquidity, level of activity, volatility and stability, could have a material impact on our business. As well, interest rates, foreign exchange rates, consumer saving and spending, housing prices, consumer borrowing and repayment, business investment, government spending and the rate of inflation affect the business and economic environment in which we operate.

In addition, the financial services industry is characterized by interrelations among financial services companies. As a result, defaults by other financial services companies could adversely affect our earnings. Given the interconnectedness of global financial markets and the importance of trade flows, changes in the global economic and political environment, such as the UK's exit from the EU and the ongoing NAFTA negotiations, could affect the pace of economic growth in Canada.

Fiscal and monetary policies

Our earnings are affected by fiscal, monetary and economic policies that are adopted by Canadian regulatory authorities. Such policies can have the effect of increasing or reducing competition and uncertainty in the markets. Such policies may also adversely affect our customers and counterparties, causing a greater risk of default by these customers and counterparties. In addition, expectations in the bond and money markets about inflation and central bank monetary policy have an impact on the level of interest rates. Changes in market expectations and monetary policy are difficult to anticipate and predict. Fluctuations in interest rates that result from these changes can have an impact on our earnings. For example, despite recent rate increases we continue to operate within a low interest rate environment and this puts pressure on our results. Future changes to such policies will directly impact our earnings.

Changes in laws, regulations and approach to supervision
Regulators in Canada are very active on a number of fronts, including consumer protection, capital markets activities, anti-money laundering, and the oversight and strengthening of risk management. Regulations are in place to protect our customers and the public interest. Considerable changes have been made to laws and regulations that relate to the financial services industry, including changes related to capital and liquidity requirements. Changes in laws and regulations, including their interpretation and application, and changes in approaches to supervision could adversely affect our earnings. For example, the Government of Canada has introduced a number of measures to address concerns surrounding the level and sustainability of Canadian consumer indebtedness, such as the foreign buyer tax in British Columbia and Ontario and the new stress tests for uninsured mortgages. The implementation of these and other measures can impact our profitability.

Failure to comply with laws and regulations could result in sanctions and financial penalties that could adversely affect our strategic flexibility, reputation and earnings.

Level of competition and disruptive technology
The level of competition among financial services companies is high. Customer loyalty and retention can be influenced by a number of factors, including service levels, prices for products or services, our reputation and the actions of our competitors. Changes in these factors or any subsequent loss of market share could adversely affect our earnings. Furthermore, non-financial companies (such as financial technology ('fintech') companies) have increasingly been offering services traditionally provided by banks. While this presents a number of opportunities that we are actively engaging in, there is also a risk that it could disrupt financial institutions' traditional business model.

Changes to our credit rating
Credit ratings are important to our ability to raise both capital and funding to support our business operations. Maintaining strong credit ratings allows us to access the capital markets at competitive pricing. Should our credit ratings experience a material downgrade, our costs of funding would likely increase significantly and our access to funding and capital through capital markets could be reduced.

Operational and infrastructure risks
We are exposed to many operational risks including: the risk of fraud by employees or others, unauthorized transactions by employees, and operational or human error. We face the risk of loss due to cyber-attack and also face the risk that computer or telecommunications systems could fail, despite our efforts to maintain these systems in good working order. Some of our services or operations may face the risk of interruption or other security risks arising from the use of the internet in these services or operations, which may impact our customers and infrastructure. Given the high volume of transactions we process on a daily basis, certain errors may be repeated or compounded before they are discovered and rectified. Shortcomings or failures of our internal processes, employees or systems, or those provided by third parties, including any of our financial, accounting or other data processing systems, could lead to financial loss and damage to our reputation. In addition, despite the contingency plans we have in place, our ability to conduct business may be adversely affected by a disruption in the infrastructure that supports both our operations and the communities in which we do business, including but not limited to disruption caused by public health emergencies, environmental disasters or terrorist acts.

Other risks
Other factors that may impact our results include sustainability risks associated with the financial services provided to customers by the bank which could indirectly result in unacceptable impacts on people or the environment; climate change risk associated with the risk to our clients' businesses as they adapt to the shift to a lower-carbon economy; changes in accounting standards, including their effect on our accounting policies, estimates and judgments; changes in tax rates, tax law and policy, and its interpretation by taxing authorities; our ability to attract, develop and retain key personnel; and model risk associated with the risk of error in the design, development, implementation or use of models.

Capital

Our objective in the management of capital is to maintain appropriate levels of capital to support our business strategy and meet our regulatory requirements.

Capital management (Audited)
The bank manages its capital in accordance with the principles contained within its capital management policy and its annual capital plan, which includes the results of its internal capital adequacy assessment

process ('ICAAP'). The bank determines an optimal amount and composition of regulatory and working capital required to support planned business growth, taking into consideration economic capital and the costs of capital, accepted market practices and the volatility of capital and business levels in its annual operating plan.

The bank maintains a capital position commensurate with its overall risk profile and control environment as determined by the ICAAP. The ICAAP supports capital management and ensures that the bank carries sufficient capital to meet regulatory requirements and internal targets to cover current and future risks; and, survive periods of severe economic downturn (stressed scenarios). The key elements of the bank's ICAAP include: a risk appetite framework; the identification and assessment of the risks the bank is exposed to; and, an assessment of capital adequacy against regulatory requirements as well as under stressed scenarios.

Management has established appropriate governance structures and internal control to ensure the ICAAP remains effective in supporting the bank's capital management objectives.

The bank met its regulatory requirements throughout 2017.

Basel III capital and leverage rules

The bank assesses capital adequacy against standards established in guidelines issued by OSFI in accordance with the Basel III capital adequacy framework.

The Basel III capital adequacy framework significantly revised the definitions of regulatory capital and introduced the requirement that all regulatory capital must be able to absorb losses in a failed financial institution. Capital instruments issued prior to the adoption of the existing requirements in 2013 that do not meet these requirements are being phased out as regulatory capital over a ten year period from 2013 to 2022.

The framework emphasizes common equity as the predominant component of tier 1 capital by adding a minimum common equity tier 1 ('CET1') capital ratio. In addition, for the purposes of calculating CET1 capital, certain other regulatory adjustments including those relating to goodwill, intangible assets, pension assets and deferred tax assets are being phased in over a five year period from 2014 to 2018. The Basel III rules also require institutions to hold capital buffers designed to avoid breaches of minimum regulatory requirements during periods of stress.

OSFI has established 'all-in' capital targets (including capital conservation buffer) that all institutions are expected to attain or exceed, as follows: CET1 capital ratio of 7.0%, tier 1 capital ratio of 8.5% and total capital ratio of 10.5%.

Regulatory capital ratios

Actual regulatory capital ratios and capital requirements

	Year ended	
	31 December 2017	31 December 2016
Actual regulatory capital ratios[1]		
Common equity tier 1 capital ratio	**10.5%**	10.5%
Tier 1 capital ratio	**12.4%**	12.5%
Total capital ratio	**14.7%**	13.5%
Leverage ratio[2]	**4.9%**	4.7%
Regulatory capital requirements[3]		
Minimum common equity tier 1 capital ratio	**7.0%**	7.0%
Minimum tier 1 capital ratio	**8.5%**	8.5%
Minimum total capital ratio	**10.5%**	10.5%

1 *Presented under a Basel III 'all-in' basis per OSFI guidelines which applies Basel III regulatory adjustments from 1 January 2014, however phases out of non-qualifying capital instruments over 10 years starting 1 January 2013.*

2 *Presented under a Basel III on a 'transitional' basis per OSFI guidelines which phases in Basel III regulatory adjustments over 4 years starting 1 January 2015 and phases out of non-qualifying capital instruments over 10 years starting 1 January 2013.*

3 *On an 'all-in' basis including mandated capital conservation buffer.*

Regulatory capital

Regulatory capital and risk-weighted assets

Presented under a Basel III 'all-in' basis which applied Basel III regulatory adjustments from 1 January 2013, and the phase out of non-qualifying capital instruments over 10 years starting from the same date.

	Year ended	
	31 December 2017 $m	31 December 2016 $m
Tier 1 capital	**5,589**	5,241
Common equity tier 1 capital	**4,739**	4,391
Gross common equity[1]	**4,860**	4,564
Regulatory adjustments	**(121)**	(173)
Additional tier 1 eligible capital[2]	**850**	850
Tier 2 capital[3]	**1,042**	445
Total capital available for regulatory purposes (Audited)	**6,631**	5,686
Total risk-weighted assets	**45,035**	42,005

1 *Includes common share capital, retained earnings and accumulated other comprehensive income.*
2 *Includes capital instruments subject to phase out.*
3 *Includes directly issued capital instruments subject to phase out and collective allowances.*

Outstanding shares and dividends

Outstanding shares, dividends declared and paid on our shares, and distributions per unit on our HSBC HaTS™ in each of the last three years were as follows:

	31 December 2017			31 December 2016			31 December 2015		
	Dividend **$ per share**	*Number of issued shares* **'000s**	*Carrying value* **$m**	*Dividend* $ per share	*Number of issued shares* '000s	*Carrying value* $m	*Dividend* $ per share	*Number of issued shares* '000s	*Carrying value* $m
Common shares	**0.471**	**498,668**	**1,225**	0.684	498,668	1,225	0.666	498,668	1,225
Class 1 preferred shares[1]									
Series C[2]	**1.275**	**–**	**–**	1.275	7,000	175	1.275	7,000	175
Series D[2]	**1.250**	**–**	**–**	1.250	7,000	175	1.250	7,000	175
Series G	**1.000**	**20,000**	**500**	1.000	20,000	500	0.500	20,000	500
Series I[3]	**0.000**	**14,000**	**350**	–	–	–	–	–	–
HSBC HaTS™									
Series 2015[4]	**–**	**–**	**–**	–	–	–	25.75	–	–

1 *Cash dividends on preferred shares are non-cumulative and are payable quarterly.*
2 *Preferred shares – Class 1, Series C and D were redeemed on 31 December 2017.*
3 *Preferred shares – Class 1, Series I were issued on 7 December 2017; no dividends were declared in 2017.*
4 *HSBC HaTS™ Series 2015 were redeemed on 30 June 2015.*

Management's Discussion and Analysis (continued)

During the year, the bank declared and paid $235m in dividends on HSBC Bank Canada common shares, a decrease of $106m compared with the prior year, and $38m in dividends on HSBC Bank Canada Class 1 preferred shares Series C, D and G, consistent with the prior year. No dividends have been declared in 2017 on HSBC Bank Canada Class 1 preferred shares Series I that were issued on 7 December 2017

Common share dividends of $200m have been declared on HSBC Bank Canada common shares and will be paid on or before 30 March 2018 to the shareholder of record on 15 February 2018.

Regular quarterly dividends have been declared on HSBC Bank Canada Class 1 preferred shares Series G. An initial dividend of $5m has been declared on HSBC Bank Canada Class 1 preferred shares Series I. The dividends will be paid in accordance with their terms in the usual manner on 31 March 2018 or the first business day thereafter to shareholders of record on 15 March 2018.

Statement of Management's Responsibility for Financial Information

The presentation and preparation of the annual consolidated financial statements, Management's Discussion and Analysis ('MD&A') and all other information in the Annual Report is the responsibility of the management of HSBC Bank Canada ('the bank'). The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards. The consolidated financial statements and information in the MD&A include amounts based on informed judgments and estimates of the expected effects of current events and transactions with appropriate consideration to materiality.

In meeting its responsibility for the reliability of financial information, management relies on comprehensive internal accounting, operating and system controls. The bank's overall controls include: an organizational structure providing for effective segregation of responsibilities; delegation of authority and personal accountability; written communication of policies and procedures of corporate conduct throughout the bank; careful selection and training of personnel; regular updating and application of written accounting and administrative policies and procedures necessary to ensure adequate internal control over transactions, assets and records; and a continuing program of extensive internal audit covering all aspects of the bank's operations. These controls are designed to provide reasonable assurance that financial records are reliable for preparing the consolidated financial statements and maintaining accountability for assets that assets are safeguarded against unauthorized use or disposition and that the bank is in compliance with all regulatory requirements. Management has a process in place to evaluate internal control over financial reporting based on the criteria established in the Internal Control – Integrated Framework (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

At least once a year, the Office of the Superintendent of Financial Institutions Canada ('OSFI'), makes such examination and enquiry into the affairs of the bank as deemed necessary to ensure that the provisions of the Bank Act, having reference to the rights and interests of the depositors and the creditors of the bank, are being complied with and that the bank is in a sound financial condition.

The bank's Board of Directors oversees management's responsibilities for financial reporting through the Audit and Risk Committee, which is composed of directors who are not officers or employees of the bank. The Audit and Risk Committee reviews the bank's interim and annual consolidated financial statements and MD&A. The committee approves the interim statements and recommends the Annual statements for approval by the Board of Directors. Other key responsibilities of the Audit and Risk Committee include monitoring the bank's system of internal control, monitoring its compliance with legal and regulatory requirements, considering the appointment of the Shareholders' auditors and reviewing the qualifications, independence and performance of Shareholders' auditors and internal auditors.

As at 31 December 2017, we, the bank's Chief Executive Officer and Chief Financial Officer, have certified the design and effectiveness of our internal control over financial reporting as defined by the Canadian Securities Administrators under National Instrument 52-109 (Certification of Disclosure in Issuer's Annual and Interim Filings).

The Shareholders' auditors, the bank's Chief Internal Auditor and OSFI have full and free access to the Board of Directors and its committees to discuss audit, financial reporting and related matters.

Sandra Stuart
President and Chief Executive Officer
HSBC Bank Canada

Jacques Fleurant
Chief Financial Officer
HSBC Bank Canada

Vancouver, Canada
15 February 2018

Independent Auditor's Report

To the Shareholders of HSBC Bank Canada

We have audited the accompanying consolidated financial statements of HSBC Bank Canada and its subsidiaries, which comprise the consolidated balance sheets as at December 31, 2017 and 2016 and the consolidated income statements and consolidated statements of comprehensive income, cash flows and changes in equity for the years then ended, and the related notes, which comprise a summary of significant accounting policies and other explanatory information.

Management's responsibility for the consolidated financial statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of HSBC Bank Canada and its subsidiaries as at December 31, 2017 and 2016 and their financial performance and their cash flows for the years then ended in accordance with International Financial Reporting Standards.

PricewaterhouseCoopers LLP

Chartered Professional Accountants

Vancouver, Canada
16 February 2018

Consolidated Financial Statements

Consolidated Financial Statements and Notes on the Consolidated Financial Statements

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Consolidated income statement

For the year ended 31 December *(in millions of dollars except per share amounts)*

	Notes	2017 $m	2016 $m
Interest income		**1,910**	1,744
Interest expense		**(733)**	(617)
Net interest income		**1,177**	1,127
Fee income		**729**	735
Fee expense		**(76)**	(68)
Net fee income		**653**	667
Trading income excluding net interest income		**102**	173
Net interest income on trading activities		**23**	17
Net trading income		**125**	190
Net expense from financial instruments designated at fair value		**(4)**	(4)
Gains less losses from financial investments		**31**	24
Other operating income		**88**	75
Total operating income		**2,070**	2,079
Loan impairment recoveries/(charges) and other credit risk provisions		**108**	(107)
Net operating income	3	**2,178**	1,972
Employee compensation and benefits	4, 5	**(705)**	(662)
General and administrative expenses		**(537)**	(550)
Depreciation of property, plant and equipment		**(33)**	(33)
Amortization and impairment of intangible assets		**(14)**	(10)
Total operating expenses		**(1,289)**	(1,255)
Operating profit		**889**	717
Share of profit/(loss) in associates		**6**	(2)
Profit before income tax expense		**895**	715
Income tax expense	6	**(227)**	(191)
Profit for the year		**668**	524
Profit attributable to the common shareholder		**630**	486
Profit attributable to preferred shareholders		**38**	38
Profit attributable to shareholders		**668**	524
Average number of common shares outstanding (000's)		**498,668**	498,668
Basic earnings per common share		**$ 1.26**	$ 0.97

The accompanying notes and the audited sections of 'Risk management' and 'Capital' and 'Movement in impairment allowances and provision for credit losses' within the Management's Discussion and Analysis form an integral part of these consolidated financial statements.

Consolidated statement of comprehensive income

For the year ended 31 December *(in millions of dollars)*

	Notes	2017 $m	2016 $m
Profit for the year		**668**	524
Other comprehensive income			
Items that will be reclassified subsequently to profit or loss when specific conditions are met:			
Available-for-sale investments		**18**	3
– fair value gain		**55**	28
– fair value gain transferred to income statement on disposal		**(31)**	(24)
– income taxes		**(6)**	(1)
Cash flow hedges		**(106)**	(68)
– fair value gain		**32**	106
– fair value gain transferred to income statement		**(175)**	(198)
– income recovery		**37**	24
Items that will not be reclassified subsequently to profit or loss when specific conditions are met:			
Remeasurement of defined benefit plans		**(12)**	(41)
– before income taxes	4	**(19)**	(55)
– income taxes	6	**7**	14
Changes in fair value of financial liabilities designated at fair value due to movement in own credit risk		**3**	–
– before income taxes		**3**	–
– income taxes		**–**	–
Other comprehensive loss for the year, net of tax		**(97)**	(106)
Total comprehensive income for the year attributable to shareholders		**571**	418

The accompanying notes and the audited sections of 'Risk management' and 'Capital' and 'Movement in impairment allowances and provision for credit losses' within the Management's Discussion and Analysis form an integral part of these consolidated financial statements.

Consolidated balance sheet

At 31 December *(in millions of dollars)*

	Notes	2017 $m	2016 $m
ASSETS			
Cash and balances at central banks		**411**	66
Items in the course of collection from other banks		**25**	58
Trading assets	10	**5,373**	6,288
Derivatives	11	**3,675**	3,850
Loans and advances to banks		**1,221**	1,071
Loans and advances to customers		**50,337**	46,907
Reverse repurchase agreements – non-trading		**6,153**	5,938
Financial investments	12	**22,913**	25,231
Other assets	17	**899**	417
Prepayments and accrued income		**213**	186
Customers' liability under acceptances		**4,801**	4,322
Current tax assets		**44**	30
Property, plant and equipment	15	**106**	104
Goodwill and intangible assets	18	**90**	70
Deferred taxes		**118**	119
Total assets		**96,379**	94,657
LIABILITIES AND EQUITY			
Liabilities			
Deposits by banks		**1,696**	946
Customer accounts		**57,054**	56,674
Repurchase agreements – non-trading		**4,604**	4,345
Items in the course of transmission to other banks		**299**	82
Trading liabilities	19	**3,701**	3,784
Financial liabilities designated at fair value[1]	21	**—**	403
Derivatives	11	**3,516**	3,838
Debt securities in issue	20	**10,820**	10,256
Other liabilities	22	**2,217**	2,610
Acceptances		**4,801**	4,322
Accruals and deferred income		**475**	475
Retirement benefit liabilities	4	**346**	342
Subordinated liabilities[1]	23	**1,039**	1,039
Provisions		**61**	116
Current tax liabilities		**40**	10
Total liabilities		**90,669**	89,242
Equity			
Common shares	26	**1,225**	1,225
Preferred shares	26	**850**	850
Other reserves		**(61)**	27
Retained earnings		**3,696**	3,313
Total shareholders' equity		**5,710**	5,415
Total equity and liabilities		**96,379**	94,657

1 *Changes to subordinated liabilities during the year are attributed to cash inflows from an issuance of subordinated debt of $1.0bn and cash outflow from the repayment of $1.4bn of securities as presented in the Consolidated statement of cash flows. Non-cash changes during the year included fair value loss of $3.0m.*

The accompanying notes and the audited sections of 'Risk management' and 'Capital' and 'Movement in impairment allowances and provision for credit losses' within the Management's Discussion and Analysis form an integral part of these consolidated financial statements.

Approved on behalf of the Board of Directors:

Samuel Minzberg
Chairman,
HSBC Bank Canada

Sandra Stuart
President and Chief Executive Officer
HSBC Bank Canada

Consolidated statement of cash flows

For the year ended 31 December *(in millions of dollars)*

	Notes	2017 $m	2016 $m
Cash flows from operating activities			
Profit before tax		**895**	715
Adjustments for:			
– non-cash items included in profit before tax	27	**(40)**	176
– change in operating assets	27	**(3,982)**	878
– change in operating liabilities	27	**2,232**	(1,722)
– tax paid		**(159)**	(134)
Net cash used in operating activities		**(1,054)**	(87)
Cash flows from investing activities			
Purchase of financial investments		**(7,685)**	(18,322)
Proceeds from the sale and maturity of financial investments		**10,028**	17,029
Purchase of property, plant and equipment		**(65)**	(45)
Net cash from/(used in) investing activities		**2,278**	(1,338)
Cash flows from financing activities			
Redemption of subordinated liabilities		**(1,400)**	(200)
Issuance of subordinated liabilities		**1,000**	1,000
(Redemption)/issuance of loans payable		**(671)**	671
Dividends paid to shareholders		**(273)**	(379)
Issuance of preferred shares		**350**	–
Net cash (used in)/from financing activities		**(994)**	1,092
Increase/(decrease) in cash and cash equivalents		**230**	(333)
Cash and cash equivalents at the beginning of the year		**1,650**	1,983
Cash and cash equivalents at the end of the year	27	**1,880**	1,650
Interest			
Interest paid		**(743)**	(612)
Interest received		**1,887**	1,754

The accompanying notes and the audited sections of 'Risk management' and 'Capital' and 'Movement in impairment allowances and provision for credit losses' within the Management's Discussion and Analysis form an integral part of these consolidated financial statements.

Consolidated statement of changes in equity

For the year ended 31 December *(in millions of dollars)*

			Other reserves			
	Share capital[1] $m	*Retained earnings* $m	*Available-for-sale fair value reserve* $m	*Cash flow hedging reserve* $m	*Total other reserves* $m	*Total equity* $m
At 1 January 2017	**2,075**	**3,313**	**(30)**	**57**	**27**	**5,415**
Profit for the year	–	**668**	–	–	–	**668**
Other comprehensive income/(loss), net of tax	–	**(9)**	**18**	**(106)**	**(88)**	**(97)**
Available-for-sale investments	–	–	**18**	–	**18**	**18**
Cash flow hedges	–	–	–	**(106)**	**(106)**	**(106)**
Remeasurement of defined asset/liability	–	**(12)**	–	–	–	**(12)**
Changes in fair value of financial liabilities designated at fair value arising from changes in own credit risk	–	**3**	–	–	–	**3**
Total comprehensive income for the year	–	**659**	**18**	**(106)**	**(88)**	**571**
Dividends paid on common shares	–	**(235)**	–	–	–	**(235)**
Dividends paid on preferred shares	–	**(38)**	–	–	–	**(38)**
Issuance of preferred – *Class 1, Series 1*	**350**	–	–	–	–	–
Redemption of preferred – *Class 1, Series C and D*	**(350)**	–	–	–	–	–
Shares issued under employee remuneration and share plan	–	**(3)**	–	–	–	**(3)**
At 31 December 2017	**2,075**	**3,696**	**(12)**	**(49)**	**(61)**	**5,710**

			Other reserves			
	Share capital[1] $m	*Retained earnings* $m	*Available-for-sale fair value reserve* $m	*Cash flow hedging reserve* $m	*Total other reserves* $m	*Total equity* $m
At 1 January 2016	2,075	3,209	(33)	125	92	5,376
Profit for the year	–	524	–	–	–	524
Other comprehensive income/(loss), net of tax	–	(41)	3	(68)	(65)	(106)
Available-for-sale investments	–	–	3	–	3	3
Cash flow hedges	–	–	–	(68)	(68)	(68)
Remeasurement of defined liability/asset	–	(41)	–	–	–	(41)
Total comprehensive income for the year	–	483	3	(68)	(65)	418
Dividends paid on common shares	–	(341)	–	–	–	(341)
Dividends paid on preferred shares	–	(38)	–	–	–	(38)
At 31 December 2016	2,075	3,313	(30)	57	27	5,415

1 *Share capital is comprised of common shares $1,225m and preferred shares $850m.*

The accompanying notes and the audited sections of 'Risk management' and 'Capital' and 'Movement in impairment allowances and provision for credit losses' within the Management's Discussion and Analysis form an integral part of these consolidated financial statements.

Notes on the Consolidated Financial Statements

31 December 2017 and 2016 *(all tabular amounts are in millions of dollars unless stated otherwise)*

1 Basis of presentation

a *Compliance with International Financial Reporting Standards*

International Financial Reporting Standards ('IFRSs') comprise accounting standards as issued or adopted by the International Accounting Standards Board ('IASB') as well as interpretations issued or adopted by the IFRS Interpretations Committee.

HSBC Bank Canada ('the bank', 'we', 'our', 'HSBC') is an indirectly wholly-owned subsidiary of HSBC Holdings plc ('the Parent', 'HSBC Holdings'). In these consolidated financial statements, HSBC Group means the Parent and its subsidiary companies.

The consolidated financial statements of the bank have been prepared in accordance with IFRSs and in consideration of the accounting guidelines as issued by the Office of the Superintendent of Financial Institutions Canada ('OSFI'), as required under Section 308(4) of the *Bank Act*. At 31 December 2017, there were no unendorsed standards effective for the year ended 31 December 2017 affecting these consolidated financial statements and the bank's application of IFRSs results in no differences from IFRSs as issued by the IASB.

b *Standards adopted during the year ended 31 December 2017*

The bank has adopted the requirements of IFRS 9 'Financial Instruments' relating to the presentation of gains and losses on financial liabilities designated at fair value from 1 January 2017 in the consolidated financial statements. As a result, the effects of changes in those liabilities' credit risk is presented in other comprehensive income with the remaining effect presented in profit or loss. As permitted by the transitional requirements of IFRS 9, comparatives have not been restated. Adoption increased retained earnings at transition by $2.7m and decreased profit before tax by $2.7m and basic and diluted earnings per share by $0.01 with the opposite effect on other comprehensive income and no effect on net assets. See note 21 for more information.

There were no other new standards applied in 2017. However, during 2017, the bank adopted a number of interpretations and amendments to standards which had an insignificant effect on these consolidated financial statements.

c *Future accounting developments*

Minor amendments to IFRSs

The IASB has published a number of minor amendments to IFRSs in its 'Annual Improvements to IFRSs 2014-2016' and in a series of stand-alone amendments which are effective from 1 January 2018. We expect they will have an insignificant effect, when adopted, on our consolidated financial statements. The bank has not early adopted any of the amendments effective after 31 December 2017, except the requirements of IFRS 9 'Financial Instruments' relating to the presentation of gains and losses on financial liabilities designated at fair value which was adopted from 1 January 2017.

Major new IFRSs

The IASB has published IFRS 9 'Financial Instruments', IFRS 15 'Revenue from Contracts with Customers' and IFRS 16 'Leases'.

IFRS 9 'Financial Instruments'

In July 2014, the IASB issued IFRS 9 'Financial Instruments', which is the comprehensive standard to replace IAS 39 'Financial Instruments: Recognition and Measurement', and includes requirements for classification and measurement of financial assets and liabilities, impairment of financial assets and hedge accounting.

Classification and measurement

The classification and measurement of financial assets will depend on how these assets are managed (the entity's business model) and the instruments' contractual cash flow characteristics. These factors determine whether the financial assets are measured at amortized cost, fair value through other comprehensive income ('FVOCI') or fair value through profit or loss ('FVPL'). The combined effect of the application of the business model and the contractual cash flow characteristics tests may result in some differences in the population of financial assets measured at amortized cost or fair value compared with IAS 39.

For financial liabilities designated to be measured at fair value, gains or losses relating to changes in the entity's own credit risk are to be included in other comprehensive income.

Notes on the Consolidated Financial Statements (continued)

1 Basis of presentation *(continued)*

c *Future accounting developments (continued)*

Impairment

The impairment requirements apply to financial assets measured at amortized cost and FVOCI, and lease receivables and certain loan commitments and financial guarantee contracts. At initial recognition, an impairment allowance (or provision in the case of commitments and guarantees) is required for expected credit losses ('ECL') resulting from default events that are possible within the next 12 months ('12-month ECL'). In the event of a significant increase in credit risk, an allowance (or provision) is required for ECL resulting from all possible default events over the expected life of the financial instrument ('lifetime ECL'). Financial assets where 12-month ECL is recognized are considered to be 'stage 1'; financial assets that are considered to have experienced a significant increase in credit risk are in 'stage 2'; and financial assets for which there is objective evidence of impairment are considered to be in default or otherwise credit impaired are in 'stage 3'.

The assessment of credit risk and the estimation of ECL are required to be unbiased and probability-weighted, and should incorporate all available information relevant to the assessment, including information about past events, current conditions and reasonable and supportable forecasts of economic conditions at the reporting date. In addition, the estimation of ECL should take into account the time value of money. As a result, the recognition and measurement of impairment is intended to be more forward-looking than under IAS 39 and the resulting impairment charge will tend to be more volatile.

Hedge accounting

The general hedge accounting requirements aim to simplify hedge accounting, creating a stronger link with risk management strategy and permitting hedge accounting to be applied to a greater variety of hedging instruments and risks. However they do not explicitly address macro hedge accounting strategies, which are particularly important for many banks. As a result, IFRS 9 includes an accounting policy choice to remain with IAS 39 hedge accounting.

Transition

With the exception of the provisions relating to the presentation of gains and losses on financial liabilities designated at fair value, which were adopted from 1 January 2017, the requirements of IFRS 9 'Financial Instruments' will be adopted from 1 January 2018. IFRS 9 includes an accounting policy choice to continue IAS 39 hedge accounting, which the bank has exercised, although it will implement the revised hedge accounting disclosures required by the related amendments to IFRS 7 'Financial Instruments: Disclosures'. The classification and measurement and impairment requirements are applied retrospectively by adjusting the opening balance sheet at the date of initial application, with no requirement to restate comparative periods. The bank does not intend to restate comparatives. Adoption is not expected to have a significant impact to our net assets or CET1 ratio. The bank continues to refine and monitor certain elements of our impairment process in advance of our 2018 first quarter results.

IFRS 15 'Revenue from Contracts with Customers'

In May 2014, the IASB issued IFRS 15 'Revenue from Contracts with Customers' and it is effective for annual periods beginning on or after 1 January 2018. IFRS 15 provides a principles-based approach for revenue recognition, and introduces the concept of recognizing revenue for performance obligations as they are satisfied. The bank will adopt the standard on its mandatory effective date, and the standard will be applied on a retrospective basis, recognizing the cumulative effect, if any, of initially applying the standard as an adjustment to the opening balance of retained earnings. The bank has assessed the impact of IFRS 15 and expects that the standard will have no significant effect, when applied, on our consolidated financial statements.

1 Basis of presentation *(continued)*

c *Future accounting developments (continued)*

IFRS 16 'Leases'

In January 2016, the IASB issued IFRS 16 'Leases' with an effective date of annual periods beginning on or after 1 January 2019. IFRS 16 results in lessees accounting for most leases within the scope of the standard in a manner similar to the way in which finance leases are currently accounted for under IAS 17 'Leases'. Lessees will recognize a 'right of use' asset and a corresponding financial liability on the balance sheet. The asset will be amortized over the length of the lease and the financial liability measured at amortized cost. Lessor accounting remains substantially the same as in IAS 17. The bank is currently assessing the impact of IFRS 16 and it is not practicable to quantify the effect as at the date of the publication of these financial statements. Existing operating lease commitments are set out in note 29 of the financial statements.

d *Foreign currencies*

The bank's consolidated financial statements are presented in Canadian dollars which is also its functional currency. The abbreviation '$m' represents millions of dollars. All tabular amounts are in millions of dollars except where otherwise noted.

Transactions in foreign currencies are recorded at the rate of exchange on the date of the transaction. Assets and liabilities denominated in foreign currencies are translated at the rate of exchange at the balance sheet date except non-monetary assets and liabilities measured at historical cost that are translated using the rate of exchange at the initial transaction date. Exchange differences are included in other comprehensive income or in the income statement depending on where the gain or loss on the underlying item is recognized.

e *Presentation of information*

Certain disclosures required by IFRSs have been included in the audited sections of the *Annual Report and Accounts* as follows:

- Disclosures required under IFRS 7 'Financial Instruments: Disclosures' concerning the nature and extent of risks relating to financial instruments and reconciliation of allowance accounts for credit losses are included in the audited information within the 'Risk management' section within Management's Discussion and Analysis;
- Capital disclosures under IAS 1 'Presentation of financial statements' have been included in the audited information in the 'Capital' section within Management's Discussion and Analysis.
- Disclosures relating to the bank's securitization activities and structured products are included in note 14.

f *Changes to the presentation of the Financial Statements and Notes on the Financial Statements*

There have been no changes to the presentation of the Financial Statement and notes on the Financial Statements.

g *Critical accounting estimates and assumptions*

The preparation of financial information requires the use of estimates and judgments about future conditions. In view of the inherent uncertainties and the high level of subjectivity involved in the recognition or measurement of items listed below, it is possible that the outcomes in the next financial year could differ from those on which management's estimates are based. This would result in materially different estimates and judgements from those reached by management for the purposes of these Financial Statements. Management's selection of the bank's accounting policies which contain critical estimates and judgments listed below and discussed in the 'Critical accounting estimates and judgments' section of Management's Discussion and Analysis. It reflects the materiality of the items to which the policies are applied and the high degree of judgment and estimation uncertainty involved.

- Impairment of loans and advances;
- Valuation of financial instruments;
- Deferred tax assets;
- Defined benefit obligations.

Notes on the Consolidated Financial Statements (continued)

1 Basis of presentation *(continued)*

h *Segmental analysis*

The bank's operations are managed according to the following global businesses: Commercial Banking, Global Banking and Markets, Retail Banking and Wealth Management as well as Corporate Centre.

Measurement of segmental assets, liabilities, income and expenses is in accordance with the bank's accounting policies. Segmental income and expenses include transfers between segments and these transfers are conducted at arm's length. Shared costs are included in segments on the basis of the actual recharges made.

i *Going concern*

The financial statements are prepared on a going concern basis, as the Directors are satisfied that the bank has the resources to continue in business for the foreseeable future. In making this assessment, the Directors have considered a wide range of information relating to present and future conditions, including future projections of profitability, cash flows and capital resources.

2 Summary of significant accounting policies

a *Consolidation and related policies*

Investments in subsidiaries

The bank controls and consequently consolidates an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Control is initially assessed based on consideration of all facts and circumstances, including the purpose and design of the entity, the facts and circumstances relating to decision making rights and the rights to returns and/or the ability of the bank to vary the returns. Control is subsequently reassessed when there are significant changes to the initial setup, taking into account any changes in these facts and circumstances, significant changes in the rights to returns and/or the ability of the bank to vary the returns.

Where an entity is governed by voting rights, the bank would consolidate when it holds, directly or indirectly, the necessary voting rights to pass resolutions by the governing body. In all other cases, the assessment of control is more complex and requires judgment of other factors, including having exposure to variability of returns, power over the relevant activities or holding the power as agent or principal.

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured at the fair value of the consideration, including contingent consideration, given at the date of exchange. Acquisition-related costs are recognized as an expense in the income statement in the period in which they are incurred. The acquired identifiable assets, liabilities and contingent liabilities are generally measured at their fair values at the date of acquisition. The amount of non-controlling interest is measured either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets. This election is made for each business combination.

All intra-bank transactions are eliminated on consolidation.

Goodwill

Goodwill is measured as the excess of the aggregate of the consideration transferred, the amount of non-controlling interest and the fair value of the bank's previously held equity interest, if any, over the net of the amounts of the identifiable assets acquired and the liabilities assumed.

Goodwill is allocated to cash-generating units ('CGUs') for the purpose of impairment testing, which is undertaken at the lowest level at which goodwill is monitored for internal management purposes. Impairment testing is performed at least annually, or whenever there is an indication of impairment, by comparing the recoverable amount of a CGU with its carrying amount.

Structured entities

The bank is considered to sponsor another entity if, in addition to ongoing involvement with the entity, it had a key role in establishing that entity or in bringing together the relevant counterparties so the transaction that is the purpose of the entity could occur. The bank is not considered to be a sponsor if the only involvement with the entity is to provide services at arm's length and it ceases to be a sponsor once it has no ongoing involvement with the structured entity.

2 Summary of significant accounting policies *(continued)*

a *Consolidation and related policies (continued)*

Structured entities *(continued)*

A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, for example when any voting rights relate to administrative tasks only, and key activities are directed by contractual arrangements. Structured entities often have restricted activities and a narrow and well defined objective.

Structured entities are assessed for consolidation in accordance with the accounting policy as set out above.

Interests in associates

The bank classifies investments in entities over which it has significant influence, and that are not subsidiaries (note 16), as associates.

Investments in associates are recognized using the equity method. Under this method, such investments are initially stated at cost, including attributable goodwill, and are adjusted thereafter for the post-acquisition change in the bank's share of net assets.

Profits on transactions between the bank and its associates are eliminated to the extent of the bank's interest in the respective associates. Losses are also eliminated to the extent of the bank's interest in the associates unless the transaction provides evidence of an impairment of the asset transferred.

b *Operating income*

Interest income and expense

Interest income and expense for all financial instruments not carried at fair value: Interest income and expense for all financial instruments, except for those classified as held for trading or designated at fair value (except for debt securities issued by the bank and derivatives managed in conjunction with those debt securities), are recognized in 'Interest income' and 'Interest expense' in the income statement using the effective interest method. The effective interest rate is the rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial instrument or, where appropriate, a shorter period, to the net carrying amount of the financial asset or financial liability.

Interest on impaired financial assets is recognized using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

Non-interest income and expense

Fee income is earned from a diverse range of services provided by the bank to its customers. Fee income is accounted for as follows:

- income earned on the execution of a significant act is recognized as revenue when the act is completed (for example, fees arising from negotiating, or participating in the negotiation of, a transaction for a third party, such as an arrangement for the acquisition of shares or other securities);
- income earned from the provision of services is recognized as revenue as the services are provided (for example, asset management, portfolio and other management advisory and service fees); and
- income which forms an integral part of the effective interest rate of a financial instrument is recognized as an adjustment to the effective interest rate (for example, certain loan commitment fees) and recorded in 'Interest income'.

Net trading income comprises all gains and losses from changes in the fair value of financial assets and financial liabilities held for trading, together with related interest income, expense and dividends.

Notes on the Consolidated Financial Statements (continued)

2 Summary of significant accounting policies *(continued)*

b *Operating income (continued)*

Non-interest income and expense *(continued)*

Net income/(expense) from financial instruments designated at fair value includes:

– all gains and losses from changes in the fair value of financial assets and liabilities designated at fair value through profit or loss;

– all gains and losses from changes in the fair value of derivatives that are managed in conjunction with financial assets and liabilities designated at fair value; and

– interest income and expense in respect of financial assets and liabilities designated at fair value as well as derivatives managed in conjunction with the above. However, interest arising from debt securities issued by the bank, and derivatives managed in conjunction with those debt securities is recognized in 'Interest expense'.

Dividend income is recognized when the right to receive payment is established. This is the ex-dividend date for listed equity securities, and usually the date when shareholders approve the dividend for unlisted equity securities.

c *Valuation of financial instruments*

All financial instruments are initially recognized at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of a financial instrument on initial recognition is generally its transaction price (that is, the fair value of the consideration given or received). However, sometimes the fair value will be based on other observable current market transactions in the same instrument, without modification or repackaging, or on a valuation technique whose variables include only data from observable markets, such as interest rate yield curves, option volatilities and currency rates. If there is a difference between the transaction price and the fair value of financial instruments whose fair value is based on a quoted price in an active market or a valuation technique that uses only data from observable markets, the bank recognizes the difference as a trading gain or loss at inception (a 'day 1 gain or loss'). In all other cases, the entire day 1 gain or loss is deferred and recognized in the income statement over the life of the transaction either until the transaction matures or is closed out, the valuation inputs become observable or the bank enters into an offsetting transaction.

The fair value of financial instruments is generally measured on an individual basis. However, in cases where the bank manages a group of financial assets and liabilities according to its net market or credit risk exposure, the fair value of the group of financial instruments is measured on a net basis but the underlying financial assets and liabilities are presented separately in the financial statements, unless they satisfy the IFRSs' offsetting criteria.

d *Financial instruments measured at amortized cost*

Loans and advances to banks and customers, held-to-maturity investments and most financial liabilities are measured at amortized cost. The carrying value of these financial assets at initial recognition includes any directly attributable transactions costs. If the initial fair value is lower than the cash amount advanced, such as for some leveraged finance and syndicated lending activities, the difference is deferred and recognized over the life of the loan through the recognition of interest income, unless the loan becomes impaired.

Loans and advances to banks and customers include those originated by the bank, not classified as held for trading or designated at fair value. They are recognized when cash is advanced to a borrower and are derecognized when either the borrower repays its obligations, or the loans are sold or written off, or substantially all the risks and rewards of ownership are transferred. They are initially recorded at fair value plus any directly attributable transaction costs and are subsequently measured at amortized cost using the effective interest method, less impairment allowance.

On inception of the loan, the loan to be held is recorded at its fair value and subsequently measured at amortized cost. For certain transactions, such as leveraged finance and syndicated lending activities, the cash advanced may not be the best evidence of the fair value of the loan. For these loans, where the initial fair value is lower than the cash amount advanced, the difference is charged to the income statement in other operating income. The write-down will be recovered over the life of the loan, through the recognition of interest income, unless the loan becomes impaired. Loans and advances are reclassified to 'Assets held for sale' when they meet the criteria; however, their measurement continues to be in accordance with this policy.

d *Financial instruments measured at amortized cost (continued)*

The bank may commit to underwrite loans on fixed contractual terms for specified periods of time. Where the loan arising from the lending commitment is expected to be held for trading, the commitment to lend is recorded as a derivative. On drawdown, the loan is classified as held for trading. Where the bank intends to hold the loan, a provision on the loan commitment is only recorded where it is probable that the bank will incur a loss.

Impairment of loans and advances

Losses for impaired loans are recognized when there is objective evidence that impairment of a loan or portfolio of loans has occurred. Impairment allowances that are calculated on individual loans or on groups of loans assessed collectively, are recorded as charges to the income statement and are recorded against the carrying amount of impaired loans on the balance sheet. Losses which may arise from future events are not recognized.

Individually assessed loans and advances

The factors considered in determining whether a loan is individually significant for the purposes of assessing impairment include the size of the loan, the number of loans in the portfolio, and the importance of the individual loan relationship, and how this is managed.

Loans that meet the above criteria will be individually assessed for impairment, except when volumes of defaults and losses are sufficient to justify collective assessment.

Loans considered as individually significant are typically to corporate and commercial customers, are for larger amounts and are managed on an individual basis. These loans are assessed individually at each balance sheet date whether objective evidence of impairment exists based on the following criteria:

- known cash flow difficulties experienced by the borrower;
- contractual payments of either principal or interest being past due;
- the probability that the borrower will enter bankruptcy or other financial realization;
- a concession granted to the borrower for economic or legal reasons relating to the borrower's financial difficulty that results in forgiveness or postponement of principal, interest or fees, where the concession is not insignificant; and
- there has been deterioration in the financial condition or outlook of the borrower such that its ability to repay is considered doubtful.

For those loans where objective evidence of impairment exists, impairment losses are determined considering the following factors:

- the bank's aggregate exposure to the customer;
- the viability of the customer's business model and their capacity to trade successfully out of financial difficulties and generate sufficient cash flow to service debt obligations;
- the amount and timing of expected receipts and recoveries;
- the likely dividend available on liquidation or bankruptcy;
- the extent of other creditors' commitments ranking ahead of, or equally with, the bank, and the likelihood of other creditors continuing to support the company;
- the complexity of determining the aggregate amount and ranking of all creditor claims and the extent to which legal and insurance uncertainties are evident;
- the realizable value of security (or other credit mitigants) and likelihood of successful repossession;
- the likely deduction of any costs involved in recovery of amounts outstanding;
- the ability of the borrower to obtain, and make payments in, the currency of the loan if not denominated in local currency; and
- when available, the secondary market price of the debt.

2 Summary of significant accounting policies *(continued)*

d *Financial instruments measured at amortized cost (continued)*

The realizable value of security is determined based on the current market value when the impairment assessment is performed. The value is not adjusted for expected future changes in market prices; however, adjustments are made to reflect local conditions such as forced sale discounts.

Impairment losses are calculated by discounting the expected future cash flows of a loan, which includes expected future receipts of contractual interest, at the loan's original effective interest rate, or an approximation thereof, and comparing the resultant present value with the loan's current carrying amount. The impairment allowances on individually significant accounts are reviewed at least quarterly and more regularly when circumstances require. Individually assessed impairment allowances are only released when there is reasonable and objective evidence of a reduction in the established loss estimate.

Collectively assessed loans and advances

Impairment is assessed collectively to cover losses which have been incurred but have not yet been identified on loans subject to individual assessment or for homogeneous groups of loans that are not considered individually significant. Retail lending portfolios are generally assessed for impairment collectively as the portfolios generally are large homogeneous loans pools.

Incurred but not yet identified impairment

Individually assessed loans for which no evidence of impairment has been specifically identified on an individual basis are grouped together according to their credit risk characteristics for a collective impairment assessment. These credit risk characteristics may include type of business involved, type of products offered, security obtained or other relevant factors. This assessment captures impairment losses that the bank has incurred as a result of events occurring before the balance sheet date, which the bank is not able to identify on an individual loan basis, and that can be reliably estimated. When information becomes available which identifies losses on individual loans within the group, those loans are removed from the group and assessed individually.

The collective impairment allowance is determined after taking into account:

– historical loss experience in portfolios of similar credit risk characteristics (for example, by industry sector, loan grade or product);

– the estimated period between impairment occurring and the loss being identified and evidenced by the establishment of an appropriate allowance against the individual loan; and

– management's experienced judgment as to whether current economic and credit conditions are such that the actual level of inherent losses at the balance sheet date is likely to be greater or less than that suggested by historical experience.

The period between a loss occurring and its identification is estimated by management for each identified portfolio based on economic and market conditions, customer behaviour, portfolio management information, credit management techniques and collection and recovery experiences in the market. The estimated period may vary over time as these factors change.

d *Financial instruments measured at amortized cost (continued)*

Homogeneous groups of loans and advances

Statistical methods are used to determine collective impairment losses for homogeneous groups of loans not considered individually significant. Losses in these groups of loans are recorded individually when individual loans are removed from the group and written off. The methods that are used to calculate collective allowances are:

- When appropriate empirical information is available, the bank utilizes roll-rate methodology, which employs statistical analysis of historical data and experience of delinquency and default to reliably estimate the amount of loans that will eventually be written off as a result of the events occurring before the balance sheet date and which the bank is not able to identify individually. Individual loans are grouped using ranges of past due days; statistical analysis is then used to estimate the likelihood that loans in each range will progress through the various stages of delinquency and become irrecoverable. Additionally, individual loans are segmented based on their credit characteristics, such as industry sector, loan grade or product. In applying this methodology, adjustments are made to estimate the periods of time between a loss event occurring and its discovery, for example, through a missed payment and its confirmation through write-off (known as the Loss Identification Period). Current economic conditions are also evaluated when calculating the appropriate level of allowance required to cover inherent loss. The estimated loss is the difference between the present value of expected future cash flows, discounted at the original effective interest rate of the portfolio, and the carrying amount of the portfolio.
- When the portfolio size is small or when information is insufficient or not reliable enough to adopt a roll-rate methodology, the bank adopts a basic formulaic approach based on historical loss rate experience, or a discounted cash flow model. Where a basic formulaic approach is undertaken, management estimates the period between a loss event occurring and its identification typically takes between six and twelve months.

The inherent loss within each portfolio is assessed on the basis of statistical models using historical data observations, which are updated periodically to reflect recent portfolio and economic trends. When the most recent trends arising from changes in economic, regulatory or behavioural conditions are not fully reflected in the statistical models, they are taken into account by adjusting the impairment allowances derived from the statistical models to reflect these changes as at the balance sheet date. Roll rates, loss rates and the expected timing of future recoveries are regularly benchmarked against actual outcomes to ensure they remain appropriate.

Write-off of loans and advances

Loans (and the related impairment allowance accounts) are normally written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, this is generally after receipt of any proceeds from the realization of security. In circumstances where the net realizable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier.

Reversals of impairment

If the amount of an impairment loss decreases in a subsequent period, and the decrease can be related objectively to an event occurring after the impairment was recognized, the excess is written back by reducing the loan impairment allowance account accordingly. The write-back is recognized in the income statement.

Assets acquired in exchange for loans

Non-financial assets acquired in exchange for loans as part of an orderly realization are recorded as assets held for sale and reported in ‘Other assets’ if those assets are classified held for sale. The asset acquired is recorded at the lower of its fair value less costs to sell and the carrying amount of the loan (net of impairment allowance) at the date of exchange. No depreciation is charged in respect of assets held for sale. Impairment and reversals of previous impairments are recognized in the income statement in ‘Other operating income’ together with any realized gains or losses on disposal.

2 Summary of significant accounting policies *(continued)*

d *Financial instruments measured at amortized cost (continued)*

Renegotiated loans

Loans subject to collective impairment assessment whose terms have been renegotiated are no longer considered past due, but are treated as up to date loans for measurement purposes once a minimum number of payments required have been received. They are segregated from other parts of the loan portfolio for the purposes of collective impairment assessment, to reflect their risk profile. Loans subject to individual impairment assessment, whose terms have been renegotiated, are subject to ongoing review to determine whether they remain impaired. The carrying amounts of loans that have been classified as renegotiated retain this classification until maturity or derecognition, including write-off.

A loan that is renegotiated is derecognized if the existing agreement is canceled and a new agreement made on substantially different terms, or if the terms of an existing agreement are modified, such that the renegotiated loan is substantially a different financial instrument. Any new agreements arising due to a derecognition event will continue to be disclosed as renegotiated loans and are assessed for impairment as above.

Non-trading reverse repurchase and repurchase agreements

When securities are sold subject to a commitment to repurchase them at a predetermined price (‘repos’), they remain on the balance sheet and a liability is recorded in respect of the consideration received. Securities purchased under commitments to resell (‘reverse repos’) are not recognized on the balance sheet and an asset is recorded in respect of the initial consideration paid. Non-trading repos and reverse repos are measured at amortized cost. The difference between the sale and repurchase price or between the purchase and resale price is treated as interest and recognized in net interest income over the life of the agreement and are assessed for impairment as above.

e *Financial instruments measured at fair value*

Available-for-sale financial assets

Available-for-sale financial assets are recognized on the trade date when the bank enters into contractual arrangements to purchase those instruments, and are normally derecognized when either the securities are sold or redeemed. They are subsequently remeasured at fair value, and changes therein are recognized in other comprehensive income until the assets are either sold or become impaired. Upon disposal, the cumulative gains or losses in other comprehensive income are recognized in the income statement as ‘Gains less losses from financial investments’.

Impairment of available-for-sale financial assets

Available-for sale financial assets are assessed at each balance sheet date for objective evidence of impairment. If such evidence exists as a result of one or more events that occurred after the initial recognition of the financial asset (a ‘loss event’) and that loss event has an impact, which can be reliably measured, on the estimated future cash flows of the financial asset an impairment loss is recognized.

If the available-for-sale financial asset is impaired, the difference between its acquisition cost (net of any principal repayments and amortization) and its current fair value, less any previous impairment loss recognized in the income statement, is recognized in the income statement.

Impairment losses are recognized in the income statement within ‘Loan impairment charges and other credit risk provisions’ for debt instruments and within ‘Gains less losses from financial investments’ for available-for-sale equities. The impairment methodologies for available-for-sale financial assets are set out in more detail below.

e *Financial instruments measured at fair value (continued)*

Available-for-sale debt securities

In assessing objective evidence of impairment at the reporting date, the bank considers all available evidence, including observable data or information about events specifically relating to the securities which may result in a shortfall in recovery of future cash flows. Financial difficulties of the issuer, as well as other factors such as information about the issuers' liquidity, business and financial risk exposures, levels of and trends in default for similar financial assets, national and local economic trends and conditions, and the fair value of collateral and guarantees may be considered individually, or in combination, to determine if there is objective evidence of impairment.

In addition, the performance of underlying collateral and the extent and depth of market price declines is relevant when assessing objective evidence of impairment of available-for-sale asset-backed securities ('ABSs'). The primary indicators of potential impairment are considered to be adverse fair value movements and the disappearance of an active market for a security, while changes in credit ratings are of secondary importance.

Available-for-sale equity securities

Objective evidence of impairment may include specific information about the issuer as detailed above, but may also include information about significant changes in technology, markets, economics or the law that provides evidence that the cost of the equity securities may not be recovered.

A significant or prolonged decline in the fair value of the equity below its cost is objective evidence of impairment. In assessing whether it is significant, the decline in fair value is evaluated against the original cost of the asset at initial recognition. In assessing whether it is prolonged, the decline is evaluated against the continuous period in which the fair value of the asset has been below its original cost at initial recognition.

Once an impairment loss has been recognized, the subsequent accounting treatment for changes in the fair value of that asset differs depending on the type of asset:

– for an available-for-sale debt security, a subsequent decline in the fair value of the instrument is recognized in the income statement when there is further objective evidence of impairment as a result of further decreases in the estimated future cash flows of the financial asset. Where there is no further objective evidence of impairment, the decline in the fair value of the financial asset is recognized in other comprehensive income. If the fair value of a debt security increases in a subsequent period, and the increase can be objectively related to an event occurring after the impairment loss was recognized in the income statement, or the instrument is no longer impaired, the impairment loss is reversed through the income statement; and

– for an available-for-sale equity security, all subsequent increases in the fair value of the instrument are treated as a revaluation and are recognized in other comprehensive income. Impairment losses recognized on the equity security are not reversed through the income statement. Subsequent decreases in the fair value of the available-for-sale equity security are recognized in the income statement, to the extent that further cumulative impairment losses have been incurred.

f *Financial instruments designated at fair value*

Financial instruments, other than those held for trading, are classified in this category if they meet one or more of the criteria set out below, and are so designated irrevocably at inception:

– eliminates or significantly reduces measurement or recognition inconsistencies that would otherwise arise from measuring financial instruments, or recognizing gains and losses on different bases from related positions. Under this criterion, the main classes of financial liabilities designated by the bank are issued subordinated debt. The interest payable on certain fixed rate long-term debt instruments issued has been matched with certain interest rate swaps as part of a documented interest rate risk management strategy. An accounting mismatch would arise if the debt instruments issued were accounted for at amortized cost, and this mismatch is eliminated through the fair value designation;

Notes on the Consolidated Financial Statements (continued)

2 Summary of significant accounting policies *(continued)*

f *Financial instruments designated at fair value (continued)*

– applies to groups of financial instruments that are managed, and their performance evaluated, on a fair value basis in accordance with a documented risk management or investment strategy, and where information about the groups of financial instruments is reported to management on that basis; or

– relates to financial instruments containing one or more non-closely related embedded derivatives.

The fair value designation, once made, is irrevocable. Designated financial assets are recognized when the bank enters into contracts with counterparties, which is generally on trade date, and are normally derecognized when sold. Designated financial liabilities are recognized when the bank enters into the contracts with counterparties, which is generally on settlement date, and are normally derecognized when extinguished. Subsequent changes in fair values are recognized in the income statement in 'Net income from financial instruments designated at fair value'.

Derivatives

Derivatives are financial instruments that derive their value from the price of underlying items such as equities, interest rates or other indices. Derivatives are initially recognized, and are subsequently re-measured, at fair value. Fair values of derivatives are obtained either from quoted market prices or by using valuation techniques. Derivatives are only offset for accounting purposes if the offsetting criteria are met.

Embedded derivatives are treated as separate derivatives ('bifurcated') when their economic characteristics and risks are not clearly and closely related to those of the host non-derivative contract, their contractual terms would otherwise meet the definition of a stand-alone derivative and the combined contract is not held for trading or designated at fair value. The bifurcated embedded derivatives are measured at fair value with changes therein recognized in the income statement.

Derivatives are classified as assets when their fair value is positive or as liabilities when their fair value is negative. Derivative assets and liabilities arising from different transactions are only offset if the transactions are with the same counterparty, a legal right of offset exists, and the parties intend to settle the cash flows on a net basis.

Gains and losses from changes in the fair value of derivatives, including the contractual interest, that do not qualify for hedge accounting are reported in 'Net trading income' except for derivatives managed in conjunction with financial instruments designated at fair value, where gains and losses are reported in 'Net income from financial instruments designated at fair value' together with the gains and losses on the economically hedged items. Where the derivatives are managed with debt securities in issue, the contractual interest is shown in 'Interest expense' together with the interest payable on the issued debt.

When derivatives are designated as hedges, the bank classifies them as either: (i) hedges of the change in fair value of recognized assets or liabilities or firm commitments ('fair value hedges'); or (ii) hedges of the variability in highly probable future cash flows attributable to a recognized asset or liability, or a forecast transaction ('cash flow hedges').

Hedge accounting

At the inception of a hedging relationship, the bank documents the relationship between the hedging instruments and the hedged items, its risk management objective and its strategy for undertaking the hedge. The bank requires a documented assessment, both at hedge inception and on an ongoing basis, of whether or not the hedging instruments are highly effective in offsetting the changes attributable to the hedged risks in the fair values or cash flows of the hedged items.

f *Financial instruments designated at fair value (continued)*

Fair value hedge:

Fair value hedge accounting does not change the recording of gains and losses on derivatives and other hedging instruments, but results in recognizing changes in the fair value of the hedged assets or liabilities attributable to the hedged risk that would not otherwise be recognized in the income statement. If a hedging relationship no longer meets the criteria for hedge accounting, the hedge accounting is discontinued: the cumulative adjustment to the carrying amount of the hedged item is amortized to the income statement on a recalculated effective interest rate over the residual period to maturity, unless the hedged item has been derecognized.

Cash flow hedge:

The effective portion of gains and losses on hedging instruments is recognized in other comprehensive income; the ineffective portion of the change in fair value of derivative hedging instruments that are part of a cash flow hedge relationship is recognized immediately in the income statement within 'Net trading income'.

The accumulated gains and losses recognized in other comprehensive income are reclassified to the income statement in the periods in which the hedged item affects profit or loss. In hedges of forecasted transactions that result in recognition of a non-financial asset or liability, previous gains and losses recognized in other comprehensive income are included in the initial measurement of the asset or liability.

When a hedge relationship is discontinued, any cumulative gain or loss recognized in other comprehensive income remains in equity until the forecast transaction is recognized in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss previously recognized in other comprehensive income is immediately reclassified to the income statement.

Hedge effectiveness testing

To qualify for hedge accounting, the bank requires that, at the inception of the hedge and throughout its life, each hedge must be expected to be highly effective both prospectively and retrospectively, on an ongoing basis.

The documentation of each hedging relationship sets out how the effectiveness of the hedge is assessed and the method adopted by an entity to assess hedge effectiveness will depend on its risk management strategy. For prospective effectiveness, the hedging instrument must be expected to be highly effective in offsetting changes in fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated, with the effectiveness range being defined as 0.8 to 1.25. Hedge ineffectiveness is recognized in the income statement in 'Net trading income'.

Derivatives that do not qualify for hedge accounting

Non-qualifying hedges are derivatives entered into as economic hedges of assets and liabilities for which hedge accounting was not applied. Changes in fair value of non-qualifying hedges do not alter the cash flows expected as part of the documented management strategies for both the non-qualifying hedge instruments and the related assets and liabilities.

Trading assets and trading liabilities

Financial assets and liabilities are classified as held for trading if they have been acquired principally for the purpose of selling or repurchasing in the near term, or they form part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking. They are recognized on trade date, when the bank enters into contractual arrangements with counterparties, and are normally derecognized when these assets are sold or when these liabilities are extinguished. They are initially measured at fair value, with transaction costs taken to the income statement. Subsequent changes in their fair values and interest earned or paid are recognized in the income statement in 'Net trading income'.

Derecognition of financial assets

Financial assets are derecognized when the contractual right to receive cash flows from the assets has expired; or when the bank has transferred its contractual right to receive the cash flows of the financial assets, and either:

- substantially all the risks and rewards of ownership have been transferred; or
- the bank has neither retained nor transferred substantially all the risks and rewards, but has not retained control.

Notes on the Consolidated Financial Statements (continued)

2 Summary of significant accounting policies *(continued)*

g *Employee compensation and benefits*

Post-employment benefits

The bank operates a number of pension and other post-employment benefit plans. These plans include both defined benefit and defined contribution plans and various other post-employment benefits such as post-employment healthcare. The pension plans are funded by contributions from the bank and its employees, while the supplemental pension arrangements are not funded.

Payments to defined contribution plans are charged as an expense as the employees render service.

The defined benefit pension costs and the present value of defined benefit obligations are calculated at the reporting date by the schemes' actuaries using the Projected Unit Credit Method. The net charge to the income statement mainly comprises the service cost and the net interest on the net defined benefit liability and is presented in operating expenses.

The past service cost which is charged immediately to the income statement, is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or curtailment (a significant reduction by the entity in the number of employees covered by a plan). A settlement is a transaction that eliminates all further legal and constructive obligations for part or all of the benefits provided under a defined benefit plan, other than a payment of benefits to, or on behalf of, employees that is set out in the terms of the plan and included in the actuarial assumptions.

Re-measurements of the net defined benefit liability, which comprise actuarial gains and losses, return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income.

Actuarial gains and losses comprise experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred), as well as the effects of changes in actuarial assumptions.

The net defined benefit asset or liability represents the present value of defined benefit obligations reduced by the fair value of plan assets after, applying the asset ceiling test where the net defined benefit surplus is limited to the present value of available refunds and reductions in future contributions to the plan.

The cost of obligations arising from other post-employment defined benefit plans, such as defined benefit health-care plans, are accounted for on the same basis as defined benefit pension plans.

Share-based payments

HSBC enters into both equity-settled and cash-settled share-based payment arrangements with its employees as compensation for services provided by employees.

The vesting period for these schemes may commence before the grant date if the employees have started to render services in respect of the award before the grant date. Expenses are recognized when the employee starts to render service to which the award relates.

HSBC Holdings is the grantor of its equity instruments awarded to employees of the bank. The bank is required to partially fund share-based payment arrangements awarded to its employees. The cost of share-based payment arrangements with employees is measured by reference to the fair value of equity instruments on the date they are granted, and recognized as an expense on a straight-line basis over the vesting period. As a result of the bank's share-based payment arrangements being accounted for as equity-settled, the difference between the share-based payment expense, and the fair value of the equity instruments issued to satisfy those arrangements, is recognized in 'Retained Earnings' over the vesting period.

Fair value is determined by using appropriate valuation models, taking into account the terms and conditions of the award. Vesting conditions include service conditions and performance conditions; any other features of the arrangement are non-vesting conditions. Market performance conditions and non-vesting conditions are taken into account when estimating the fair value of the award at the grant date. They are taken into account by adjusting the number of equity instruments included in the measurement of the transaction.

A cancellation that occurs during the vesting period is treated as an acceleration of vesting, and recognized immediately for the amount that would otherwise have been recognized for services over the vesting period. Failure to meet a vesting condition by the employee is not treated as a cancellation and the amount of expense recognized for the award is adjusted to reflect the number of awards expected to vest.

h *Tax*

Income tax comprises current tax and deferred tax. Income tax is recognized in the income statement except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case it is recognized in the same statement in which the related item appears.

Current tax is the tax expected to be payable on the taxable profit for the year, calculated using tax rates enacted or substantively enacted by the balance sheet date, and any adjustment to tax payable in respect of previous years. The bank provides for potential current tax liabilities that may arise on the basis of the amounts expected to be paid to the tax authorities. Current tax assets and liabilities are offset when the bank intends to settle on a net basis and the legal right to offset exists.

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the balance sheet and the amounts attributed to such assets and liabilities for tax purposes. Deferred tax liabilities are generally recognized for all taxable temporary differences and deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which deductible temporary differences can be utilized.

Deferred tax is calculated using the tax rates expected to apply in the periods in which the assets will be realized or the liabilities settled, based on tax rates and laws enacted, or substantively enacted, by the balance sheet date. Deferred tax assets and liabilities are offset when the bank has a legal right to offset.

Current and deferred tax are calculated based on tax rates and laws enacted, or substantively enacted, by the balance sheet date.

Deferred tax relating to actuarial gains and losses on post-employment benefits is recognized in other comprehensive income. Deferred tax relating to share-based payment transactions is recognized directly in equity to the extent that the amount of the estimated future tax deduction exceeds the amount of the related cumulative remuneration expense. Tax relating to fair value re-measurements of available-for-sale investments and cash flow hedging instruments which are charged or credited directly to other comprehensive income is recognized in the statement of comprehensive income and is subsequently recognized in the income statement when the deferred fair value gain or loss is recognized in the income statement.

i *Provisions, contingent liabilities and guarantees*

Provisions

Provisions represent liabilities of uncertain timing or amount and are recognized when the bank has a present legal or constructive obligation as a result of a past event which results in a probable outflow of resources to settle the obligation and when a reliable estimate can be made of the obligation are the reporting date. Provisions are measured based upon the best estimate of the amount that would be required to settle the provision at the reporting date. The bank makes provisions for undrawn commitments and guarantees to reflect the best estimate of losses incurred by the bank at the reporting date. In other instances the bank may periodically make provisions for other matters such as litigation in instances where the recognition criteria described above is met.

Contingent liabilities

Contingent liabilities are possible obligations that arise from past events whose existence will be confirmed by uncertain future events not wholly within the control of the bank; or are present obligations that have arisen from past events where it is not probable that settlement will require the outflow of economic benefits or because the amount of settlement cannot be reliably measured. Contingent liabilities, which include certain guarantees and letters of credit pledged as collateral security and contingent liabilities related to legal proceedings or regulatory matters, are not recognized in the financial statements but are disclosed unless the probability of settlement is remote.

Financial guarantee contracts

Financial guarantee contacts are contracts that require the bank to make specified payments to reimburse the holder for a loss incurred because a specified debtor fails to make payment when due. Liabilities under financial guarantee contracts are recorded initially at their fair value, which is generally the fee received or receivable. Subsequently, financial guarantee liabilities are measured at the higher of the initial fair value, less cumulative amortization, and the best estimate of the expenditure required to settle the obligations.

Notes on the Consolidated Financial Statements (continued)

2 Summary of significant accounting policies *(continued)*

j *Lease commitments*

Agreements which transfer substantially all the risks and rewards incidental to the ownership of assets, are classified as finance leases. As a lessor under finance leases, the bank presents the amounts due under the leases, after deduction of unearned charges, in 'Loans and advances to banks' or 'Loans and advances to customers'.

All other leases are classified as operating leases. As lessor, the bank presents assets subject to operating leases in 'Property, plant and equipment'. Impairment losses are recognized to the extent that carrying values are not fully recoverable. As lessee, leased assets are not recognized on the balance sheet.

Finance income or charges on the finance lease are recognized in 'Net interest income' over the lease periods so as to give a constant rate of return. Rentals payable and receivable under operating leases are spread on a straight-line basis over the lease periods and are recognized in 'General and administrative expenses' or in 'Other operating income'.

k *Offsetting of financial assets and financial liabilities*

Financial assets and financial liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

l *Property, plant and equipment*

Land and buildings are stated at historical cost, or fair value at the Parent's date of transition to IFRSs ('deemed cost'), less impairment losses and depreciation over their estimated useful lives, as follows:

– freehold land is not depreciated;

– freehold buildings are depreciated over their estimated useful lives, which are generally between 20 and 40 years; and

– leasehold improvements are depreciated over the shorter of their unexpired lease terms of the leases or their remaining useful lives.

Equipment, fixtures and fittings (including equipment on operating leases where the bank is the lessor) are stated at cost less impairment losses and depreciation over their useful lives, which are generally between 3 and 5 years.

Property, plant and equipment are subject to an impairment review if their carrying amount may not be recoverable.

m *Intangible assets*

The bank's intangible assets include both purchased and internally generated computer software. The cost of internally generated software comprises all directly attributable costs necessary to create, produce and prepare the software to be capable of operating in the manner intended by management. Costs incurred in the ongoing maintenance of software are expensed immediately as incurred.

Intangible assets are subject to impairment review if there are events or changes in circumstances that indicate that the carrying amount may not be recoverable. Computer software is stated at cost less amortization and accumulated impairment losses and is amortized over the estimated useful life of between 3 and 5 years.

n *Share capital*

Financial instruments issued are generally classified as equity when there is no contractual obligation to transfer cash or other financial assets. Incremental costs directly attributable to the issue of equity instruments are shown in equity as a deduction from the proceeds, net of tax.

o *Cash and cash equivalents*

Cash and cash equivalents include highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value. Such investments are normally those with less than three months' maturity from the date of acquisition, and include cash and balances at the central bank, debt securities, loans and advances to banks, items in the course of collection from or in transmission to other banks and certificates of deposit.

3 Net operating income

Net operating income includes the following financial instrument related income, expense, charges and other credit risk provisions:

	2017 $m	2016 $m
Income		
Interest recognized on impaired financial assets	**18**	20
Fees earned on financial assets or liabilities not held for trading nor designated at fair value, other than fees included in effective interest rate calculations on these types of assets and liabilities	**357**	368
Fees earned on trust and other fiduciary activities where the bank holds or invests assets on behalf of its customers	**196**	180
Expense		
Interest on financial instruments, excluding interest on financial liabilities held for trading or designated at fair value	**(688)**	(576)
Fees payable on financial assets or liabilities not held for trading nor designated at fair value, other than fees included in effective interest rate calculations on these types of assets and liabilities	**(42)**	(39)
Fees payable on trust and other fiduciary activities where the bank holds or invests assets on behalf of its customers	**(5)**	(9)
Loan impairment charge and other credit risk provisions		
Net impairment charge/(recovery) on loans and advances	**63**	(124)
Other credit risk provisions	**45**	17

4 Employee compensation and benefits

Total employee compensation	2017 $m	2016 $m
Wages and salaries	**550**	534
Post-employment benefits	**56**	66
Other	**99**	62
	705	662

Post-employment benefits

We sponsor a number of defined benefit and defined contribution plans providing pension, other retirement and post-employment benefits to eligible employees. Non-pension plans are comprised of healthcare and other post-employment benefits and are not funded.

Income statement charge	2017 $m	2016 $m
Defined benefit plans		
Pension plans	**18**	17
Non-pension plans	**1**	13
Defined contribution pension plans	**37**	36
Post-employment benefits	**56**	66

4 Employee compensation and benefits *(continued)*

Post-employment defined benefit plans

Principal actuarial assumptions

The principal actuarial financial assumptions used to calculate the bank's obligations under its defined plans are presented in the table below. The 2017 and 2016 assumptions will also form and have formed the basis for measuring periodic costs under the plans in 2018 and 2017 respectively.

	Pension plans		Non-pension plans	
	2017	2016	**2017**	2016
	%	%	**%**	%
Discount rate	**3.40**	3.75	**3.40**	3.75
Rate of pay increase	**2.75**	2.75	**2.75**	2.75
Healthcare cost trend rates – Initial rate	**n/a**	n/a	**7.00**	7.50
Healthcare cost trend rates – Ultimate rate[1]	**n/a**	n/a	**5.00**	5.00

1 *The non-pension 'Healthcare cost trend rates – Ultimate rate' is applied from 2021.*

The bank determines the discount rates to be applied to its obligations in consultation with the plans' actuaries, on the basis of the current average yield of high quality Canadian corporate bonds, with maturities consistent with those of the defined benefit obligations. At 31 December 2017, the weighted average duration of the defined benefit obligation was 16.6 years, (2016: 16.8 years).

Mortality assumption

Assumptions regarding future mortality have been based on published mortality tables. The life expectancies underlying the defined benefit obligation at the reporting dates are as follows:

	Average years from age 65	
	2017	2016
For a male currently aged 65	**22**	22
For a male currently aged 45	**23**	23
For a female currently aged 65	**24**	24
For a female currently aged 45	**25**	25

Actuarial assumption sensitivities

The following table shows the effect of a ¼ percentage point change ('25bps') in key assumptions on the present value of defined benefit obligation as at 31 December:

Pension plans

	2017	2016
	$m	$m
Discount rate		
Change in defined benefit obligation at year end from a 25 bps increase	**(29)**	(27)
Change in defined benefit obligation at year end from a 25 bps decrease	**30**	28
Rate of pay increase		
Change in defined benefit obligation at year end from a 25 bps increase	**5**	5
Change in defined benefit obligation at year end from a 25 bps decrease	**(5)**	(5)

Non-pension plans

Change in defined benefit obligation at year end from a 25 bps increase in the discount rate	**(9)**	(9)
Increase in defined benefit obligation from each additional year of longevity assumed	**10**	9

4 Employee compensation and benefits *(continued)*

Plan Assets

	2017 $m	2016 $m
Fair value of plan assets		
Equities	**56**	54
Bonds	**558**	519
Other – principally bank balances and short-term investments	**6**	5
	620	578

Fair value of plan assets and present value of defined benefit obligations

	Pension plans		Non-pension plans	
	2017 $m	2016 $m	**2017 $m**	2016 $m
Fair value of plan assets				
At 1 January	**578**	569	**–**	–
Interest on plan assets	**22**	23	**–**	–
Contributions by the bank	**29**	25	**–**	4
Contributions by employees	**1**	1	**–**	–
Experience gains	**22**	(10)	**–**	–
Benefits paid	**(31)**	(29)	**–**	(4)
Non-investment expenses	**(1)**	(1)	**–**	–
Distributed on settlements	**–**	–	**–**	–
At 31 December	**620**	578	**–**	–
Present value of defined benefit obligations				
At 1 January	**(692)**	(658)	**(195)**	(178)
Current service cost	**(11)**	(10)	**(7)**	(6)
Interest cost	**(25)**	(26)	**(7)**	(7)
Contributions by employees	**(1)**	(1)	**–**	–
Actuarial gains/(losses) arising from changes in:				
– Demographic assumptions	**–**	–	**–**	–
– Financial assumptions	**(38)**	(27)	**4**	(9)
– Experience adjustments	**4**	1	**–**	1
Benefits paid	**31**	29	**4**	4
Past service cost	**–**	–	**13**	–
At 31 December	**(732)**	(692)	**(188)**	(195)
Funded	**(665)**	(627)	**–**	–
Unfunded	**(67)**	(65)	**(188)**	(195)
Other – effect of limit on plan surpluses	**(46)**	(32)	**–**	–
Net liability	**(158)**	(146)	**(188)**	(195)

The actual return on plan assets for the year ended 31 December 2017 was $44m (2016: $13m).

Actuarial valuations for the majority of the bank's pension plans are prepared annually and for non-pension arrangements triennially. The most recent actuarial valuations of the defined benefit pension plans for funding purposes were conducted as at 31 December 2016 and the most recent actuarial valuation of the non-pension arrangements was as at 31 December 2014. Based on the most recent valuations of the plans, the bank expects to make $29.5m of contributions to defined benefit pension plans during 2018.

Notes on the Consolidated Financial Statements (continued)

4 Employee compensation and benefits *(continued)*

Fair value of plan assets and present value of defined benefit obligations *(continued)*

The defined benefit pension plans expose the bank to risks, including: interest rate risk to the extent that the assets are not invested in bonds that match the plans' obligations, general market risk in respect of its equity investments, and longevity risk in respect of pensioners and beneficiaries living longer than assumed. These risks would be realized through higher pension costs and a higher defined benefit liability.

The bank takes steps to manage these risks through an asset liability management program, which includes reducing interest rate and market risk over time by increasing its asset allocation to bonds that more closely match the plan's obligations.

Summary of remeasurement, net on defined benefit obligations

	Pension plans		Non-pension plans	
	2017	2016	**2017**	2016
	$m	$m	**$m**	$m
Experience gain on plan assets	**22**	(10)	**–**	–
Demographic assumptions	**–**	–	**–**	–
Financial assumptions	**(33)**	(27)	**(4)**	(9)
Experience adjustments	**1**	1	**–**	1
Effect of increase in limit on plan surpluses	**(13)**	(11)	**–**	–
	(23)	(47)	**(4)**	(8)

5 Share-based payments

Share-based payments income statement charge

	2017	2016
	$m	$m
Restricted share awards	**10**	8
Cash settled restricted shares and other shares	**1**	–
	11	8

During 2017, $11m was charged to the income statement in respect of share-based payment transactions (2016: $8m) mostly relating to restricted share awards. These awards are generally granted to employees early in the year following the year to which the award relates. The charge for these awards is recognized from the start of the period to which the service relates to the end of the vesting period. The vesting period is the period over which the employee satisfies certain service conditions in order to become entitled to the award. Due to the staggered vesting profile of certain deferred share awards, the employee becomes entitled to a portion of the award at the end of each year during the vesting period. The income statement charge reflects this vesting profile.

The purpose of restricted share awards is to support retention of key employees, and to reward employee performance and potential. Vesting of restricted share awards is generally subject to continued employment with a vesting period and may be subject to performance conditions.

The weighted average fair value of shares awarded by the HSBC Group for restricted share awards in 2017 was $11.26 per share (2016: $9.92 per share). Fair value is measured at the prevailing market price at the date of the share award.

The bank carries a liability in respect of restricted share awards of $13m as at 31 December 2017 (2016: $11m) to its parent, HSBC Holdings, for the funding of awards that will vest in the future.

6 Tax expense

Analysis of tax expense	**2017**	2016
	$m	$m
Current taxation		
Federal	**125**	106
Provincial	**94**	79
	219	185
Deferred taxation		
Origination and reversal of temporary differences	**8**	6
Tax expense	**227**	191

The provision for income taxes shown in the consolidated income statement is at a rate that is different than the combined federal and provincial statutory income tax rate for the following reasons:

	2017	2016
	%	%
Combined federal and provincial income tax rate	**26.5**	26.2
Adjustments resulting from:		
Adjustments related to prior years	**(1.3)**	–
Substantively enacted tax rate changes	**–**	–
Other, net	**0.2**	0.5
Effective tax rate	**25.4**	26.7

In addition to the amount charged to the income statement, the aggregate amount of current and deferred taxation relating to items that are taken directly to equity was a $38m increase in equity (2016: $38m increase in equity).

Deferred taxation

Movement in deferred taxation during the year:

	2017	2016
	$m	$m
At 1 January	**119**	109
Income statement charge	**(8)**	(5)
Other comprehensive income:		
Share-based payments	**—**	–
Actuarial gains and losses	**7**	15
At 31 December	**118**	119

The amount of deferred taxation accounted for in the balance sheet comprised the following deferred tax assets and liabilities:

	2017	2016
	$m	$m
Deferred tax assets		
Retirement benefits	**93**	90
Loan impairment allowances	**55**	85
Property, plant and equipment	**1**	2
Assets leased to customers	**(78)**	(101)
Share-based payments	**5**	5
Relief for tax losses carried forward	**2**	2
Other temporary differences	**40**	36
Net deferred tax asset	**118**	119

Notes on the Consolidated Financial Statements (continued)

6 Tax expense *(continued)*

Deferred taxation *(continued)*

The amount of temporary differences for which no deferred tax asset is recognized in the balance sheet is $4.2m (2016: $4.2m). This amount is in respect of capital losses where the recoverability of potential benefits is not considered likely. The entire amount has no expiry date.

Deferred tax is not recognized in respect of the bank's investments in subsidiaries where remittance of retained earning is not contemplated, and for those associates where it has been determined that no additional tax will arise. The aggregate amount of temporary differences associated with investments where no deferred tax liability is recognized is $438m (2016: $367m).

On the evidence available, including management's updated analysis and projection of income, there will be sufficient taxable income generated by the bank to support the recognition of its net deferred tax asset.

7 Dividends

Dividends on our shares declared and paid in each of the last two years were as follows:

	2017		2016	
	$per share	**$m**	$per share	$m
Common shares		**235**		341
Class 1 preferred shares				
Series C[1]	**1.275**	**9**	1.275	9
Series D[1]	**1.250**	**9**	1.250	9
Series G	**1.000**	**20**	1.000	20
Series I[2]	**–**	**–**	–	–

1 *Preferred shares – Class 1, Series C and D were redeemed on 31 December 2017.*

2 *Preferred shares – Class 1, Series I were issued on 7 December 2017; no dividends were declared in 2017.*

8 Segment analysis

We manage and report our operations according to four operating segments: three global businesses and a corporate centre. The three global businesses are Commercial Banking, Global Banking and Markets, Retail Banking and Wealth Management. Various estimate and allocation methodologies are used in the preparation of the segment financial information. We allocate expenses directly related to earning revenue, to the segment that earned the related revenue. Expenses not directly related to earning revenue, such as overhead expenses, are allocated using appropriate formulas. Segments' net interest income reflects internal funding charges and credits on the global businesses' assets, liabilities and capital, at market rates, taking into account relevant terms. The offset of the net impact of these charges and credits is reflected in Corporate Centre.

A description of each operating segment is as follows:

Commercial Banking

Commercial Banking serves customers ranging from small enterprises focused primarily on domestic markets through to corporates operating globally. It supports customers with tailored financial products and services to allow them to operate efficiently and to grow. Services provided include working capital, term loans, payment services and international trade facilitation, among other services, as well as expertise in mergers and acquisitions, and access to financial markets.

Global Banking and Markets

Global Banking and Markets provides tailored financial solutions to major government, corporate and institutional clients worldwide. Managed as a global business, Global Banking and Markets operates a long-term relationship management approach to build a full understanding of clients' financial requirements. Sector-focused client service teams comprising of relationship managers and product specialists develop financial solutions to meet individual client needs. Global Banking and Markets is managed as three principal business lines: Markets, Capital Financing and Banking.

8 Segment analysis *(continued)*

Retail Banking and Wealth Management

Retail Banking and Wealth Management provides banking and wealth management services for our personal customers to help them to manage their finances and protect and build their financial future. Customer offerings include: liability-driven services (deposits and account services), asset-driven services (credit and lending), and fee-driven and other services (financial advisory and asset management).

Corporate Centre

Corporate Centre contains balance sheet management, interests in associates and joint ventures, the results of movements in fair value of own debt, expense related to information technology services provided to HSBC Group companies on an arm's length basis with associated recoveries and other transactions which do not directly relate to our global businesses.

	2017	2016
	$m	$m
Commercial Banking		
Net interest income	**545**	525
Net fee income	**286**	293
Net trading income	**32**	31
Gains less losses from financial investments	**1**	2
Other operating income	**21**	18
Net operating income	**885**	869
Loan impairment recoveries/(charges) and other credit risk provisions	**93**	(90)
Net operating income	**978**	779
Total operating expenses	**(388)**	(392)
Profit before income tax expense	**590**	387
Global Banking and Markets		
Net interest income	**98**	75
Net fee income	**152**	158
Net trading income	**52**	124
Losses from financial investments	**–**	(1)
Other operating loss	**–**	(6)
Total operating income	**302**	350
Loan impairment recoveries/(charges) and other credit risk provisions	**6**	(10)
Net operating income	**308**	340
Total operating expenses	**(138)**	(134)
Profit before income tax expense	**170**	206
Retail Banking and Wealth Management		
Net interest income	**425**	402
Net fee income	**215**	216
Net trading income	**24**	22
Gains less losses from financial investments	**1**	1
Other operating income	**10**	13
Total operating income	**675**	654
Loan impairment recoveries/(charges) and other credit risk provisions	**9**	(7)
Net operating income	**684**	647
Total operating expenses	**(604)**	(587)
Profit before income tax expense	**80**	60

Notes on the Consolidated Financial Statements (continued)

8 Segment analysis *(continued)*

	2017	2016
	$m	$m
Corporate Centre		
Net interest income	**109**	125
Net trading income	**17**	13
Net expense from financial instruments designated at fair value	**(4)**	(4)
Gains less losses from financial instruments	**29**	22
Other operating income	**57**	50
Net operating income	**208**	206
Total operating expenses	**(159)**	(142)
Operating profit	**49**	64
Share of profit/(loss) in associates	**6**	(2)
Profit before income tax expense	**55**	62

Other information about the profit/(loss) for the year

	Commercial Banking	*Global Banking and Markets*	*Retail Banking and Wealth Management*	*Corporate Centre*	*Total*
	$m	**$m**	**$m**	**$m**	**$m**
Year ended 31 December 2017					
Net operating income	**978**	**308**	**684**	**208**	**2,178**
External	**978**	**334**	**709**	**157**	**2,178**
Inter-segment	**–**	**(26)**	**(25)**	**51**	**–**
Year ended 31 December 2016					
Net operating income	779	340	647	206	1,972
External	788	359	701	124	1,972
Inter-segment	(9)	(19)	(54)	82	–

8 Segment analysis *(continued)*

Balance sheet information

	Commercial Banking $m	*Global Banking and Markets* $m	*Retail Banking and Wealth Management* $m	*Corporate Centre* $m	*Intersegment* $m	*Total* $m
At 31 December 2017						
Loans and advances to customers (net)	**19,856**	**3,537**	**26,944**	**–**	**–**	**50,337**
Customers' liability under acceptances	**3,431**	**1,370**	**–**	**–**	**–**	**4,801**
Total assets	**28,900**	**19,796**	**31,768**	**27,430**	**(11,515)**	**96,379**
Customer accounts	**21,128**	**6,449**	**27,887**	**1,590**	**–**	**57,054**
Acceptances	**3,431**	**1,370**	**–**	**–**	**–**	**4,801**
Total liabilities	**25,761**	**18,467**	**30,893**	**27,063**	**(11,515)**	**90,669**
At 31 December 2016						
Loans and advances to customers (net)	19,351	3,299	24,257	–	–	46,907
Customers' liability under acceptances	2,810	1,512	–	–	–	4,322
Total assets	27,741	21,634	29,817	29,276	(13,811)	94,657
Customer accounts	21,659	6,130	26,705	2,180	–	56,674
Acceptances	2,810	1,512	–	–	–	4,322
Total liabilities	24,902	19,876	28,999	29,276	(13,811)	89,242

Notes on the Consolidated Financial Statements (continued)

9 Analysis of financial assets and liabilities by measurement basis

Financial assets and financial liabilities are measured on an ongoing basis at either fair value or amortized cost. The following tables analyze the carrying amount of financial assets and liabilities by category as defined in IAS 39 and by balance sheet heading:

	2017					
	Held for trading $m	*Available-for-sale securities* $m	*Financial assets and liabilities at amortized cost* $m	*Derivatives designated as fair value hedging instruments* $m	*Derivatives designated as cash flow hedging instruments* $m	*Total* $m
Financial assets						
Cash and balances at central bank	–	–	**411**	–	–	**411**
Items in the course of collection from other banks	–	–	**25**	–	–	**25**
Trading assets	**5,373**	–	–	–	–	**5,373**
Derivatives	**3,450**	–	–	**147**	**78**	**3,675**
Loans and advances to banks	–	–	**1,221**	–	–	**1,221**
Loans and advances to customers	–	–	**50,337**	–	–	**50,337**
Reverse repurchase agreements	–	–	**6,153**	–	–	**6,153**
Financial investments	–	**22,913**	–	–	–	**22,913**
Other assets	–	–	**943**	–	–	**943**
Prepayments and accrued income	–	–	**213**	–	–	**213**
Customers' liability under acceptances	–	–	**4,801**	–	–	**4,801**
Property, plant and equipment	–	–	**106**	–	–	**106**
Goodwill and intangible assets	–	–	**90**	–	–	**90**
Deferred taxes	–	–	**118**	–	–	**118**
Total financial assets	**8,823**	**22,913**	**64,418**	**147**	**78**	**96,379**
Financial liabilities						
Deposits by banks	–	–	**1,696**	–	–	**1,696**
Customer accounts	–	–	**57,054**	–	–	**57,054**
Repurchase agreements	–	–	**4,604**	–	–	**4,604**
Items in the course of transmission to other banks	–	–	**299**	–	–	**299**
Trading liabilities	**3,701**	–	–	–	–	**3,701**
Financial liabilities designated at fair value	–	–	–	–	–	–
Derivatives	**3,343**	–	–	**31**	**142**	**3,516**
Debt securities in issue	–	–	**10,820**	–	–	**10,820**
Other liabilities	–	–	**2,217**	–	–	**2,217**
Acceptances	–	–	**4,801**	–	–	**4,801**
Accruals	–	–	**475**	–	–	**475**
Subordinated liabilities	–	–	**1,039**	–	–	**1,039**
Provisions	–	–	**61**	–	–	**61**
Current taxes	–	–	**40**	–	–	**40**
Total financial liabilities	**7,044**	–	**83,106**	**31**	**142**	**90,323**

9 Analysis of financial assets and liabilities by measurement basis *(continued)*

	2016						
	Held for trading $m	*Designated at fair value* $m	*Available-for-sale securities* $m	*Financial assets and liabilities at amortized cost* $m	*Derivatives designated as fair value hedging instruments* $m	*Derivatives designated as cash flow hedging instruments* $m	*Total* $m
Financial assets							
Cash and balances at central bank	–	–	–	66	–	–	66
Items in the course of collection from other banks	–	–	–	58	–	–	58
Trading assets	6,288	–	–	–	–	–	6,288
Derivatives	3,627	–	–	–	130	93	3,850
Loans and advances to banks	–	–	–	1,071	–	–	1,071
Loans and advances to customers	–	–	–	46,907	–	–	46,907
Reverse repurchase agreements	–	–	–	5,938	–	–	5,938
Financial investments	–	–	25,231	–	–	–	25,231
Other assets	–	–	–	447	–	–	447
Accrued income	–	–	–	186	–	–	186
Customers' liability under acceptances	–	–	–	4,322	–	–	4,322
Property, plant and equipment	–	–	–	104	–	–	104
Goodwill and intangible assets	–	–	–	70	–	–	70
Deferred taxes	–	–	–	119	–	–	119
Total financial assets	9,915	–	25,231	59,288	130	93	94,657
Financial liabilities							
Deposits by banks	–	–	–	946	–	–	946
Customer accounts	–	–	–	56,674	–	–	56,674
Repurchase agreements	–	–	–	4,345	–	–	4,345
Items in the course of transmission to other banks	–	–	–	82	–	–	82
Trading liabilities	3,784	–	–	–	–	–	3,784
Financial liabilities designated at fair value	–	403	–	–	–	–	403
Derivatives	3,565	–	–	–	136	137	3,838
Debt securities in issue	–	–	–	10,256	–	–	10,256
Other liabilities	–	–	–	2,610	–	–	2,610
Acceptances	–	–	–	4,322	–	–	4,322
Accruals	–	–	–	475	–	–	475
Subordinated liabilities	–	–	–	1,039	–	–	1,039
Provisions	–	–	–	116	–	–	116
Current taxes	–	–	–	10	–	–	10
Total financial liabilities	7,349	403	–	80,875	136	137	88,900

Notes on the Consolidated Financial Statements (continued)

10 Trading assets

	2017 $m	2016 $m
Trading assets:		
Not subject to repledge or resale by counterparties	**3,424**	2,399
Which may be repledged or resold by counterparties	**1,949**	3,889
	5,373	6,288
Canadian and Provincial Government bonds[1]	**3,249**	5,173
Debt securities	**1,041**	319
Total debt securities	**4,290**	5,492
Customer trading assets	**93**	301
Trading assets from other banks	**155**	72
Treasury and other eligible bills	**835**	421
Equity securities	**–**	2
	5,373	6,288

1 *Including government guaranteed bonds*

	2017 $m	2016 $m
Term to maturity of debt securities		
Less than 1 year	**690**	2,346
1–5 years	**763**	2,342
5–10 years	**1,753**	664
Over 10 years	**1,084**	140
	4,290	5,492

11 Derivatives

Fair values of derivatives by product contract type held

2017

	Assets			Liabilities		
	Trading $m	*Hedging* $m	*Total* $m	*Trading* $m	*Hedging* $m	*Total* $m
Foreign exchange	**1,445**	**76**	**1,521**	**1,390**	**70**	**1,460**
Interest rate	**1,987**	**148**	**2,135**	**1,936**	**103**	**2,039**
Commodity	**17**	**–**	**17**	**17**	**–**	**17**
Equity	**2**	**–**	**2**	**–**	**–**	**–**
Gross total fair values	**3,451**	**224**	**3,675**	**3,343**	**173**	**3,516**

2016

	Assets			Liabilities		
	Trading $m	*Hedging* $m	*Total* $m	*Trading* $m	*Hedging* $m	*Total* $m
Foreign exchange	2,467	45	2,512	2,433	131	2,564
Interest rate	1,133	178	1,311	1,108	142	1,250
Commodity	24	–	24	24	–	24
Equity	3	–	3	–	–	–
Gross total fair values	3,627	223	3,850	3,565	273	3,838

11 Derivatives *(continued)*

The following tables summarize the notional amounts by remaining term to maturity of the derivative portfolio.

	2017								
	Trading				Hedging				Total
	Less than 1 year $m	*1 to 5 years* $m	*More than 5 years* $m	*Total trading* $m	*Less than 1 year* $m	*Between 1–5 years* $m	*Over 5 years* $m	*Total hedging* $m	$m
Interest rate contracts									
Exchange traded futures	4,990	17,550	113	22,653	–	–	–	–	22,653
Swaps	83,515	124,178	46,251	253,944	1,221	12,898	2,634	16,753	270,697
Caps	–	3,274	464	3,738	–	–	–	–	3,738
Other interest rate	1,863	–	–	1,863	–	–	–	–	1,863
	90,368	145,002	46,828	282,198	1,221	12,898	2,634	16,753	298,951
Foreign exchange contracts									
Spot	1,642	–	–	1,642	–	–	–	–	1,642
Forward	73,091	2,503	–	75,594	–	–	–	–	75,594
Currency swaps and options	19,434	9,646	2,627	31,707	641	1,757	–	2,398	34,105
	94,167	12,149	2,627	108,943	641	1,757	–	2,398	111,341
Other derivative contracts									
Commodity	184	42	–	226	–	–	–	–	226
Equity	7	–	–	7	–	–	–	–	7
	191	42	–	233	–	–	–	–	233
Total	184,726	157,193	49,455	391,374	1,862	14,655	2,634	19,151	410,525

	2016								
	Trading				Hedging				Total
	Less than 1 year $m	*1 to 5 years* $m	*More than 5 years* $m	*Total trading* $m	*Less than 1 year* $m	*Between 1–5 years* $m	*Over 5 years* $m	*Total hedging* $m	$m
Interest rate contracts									
Exchange traded futures	25,578	9,278	28	34,884	–	–	–	–	34,884
Swaps	53,770	73,311	25,221	152,302	2,402	14,715	4,994	22,111	174,413
Caps	–	1,318	1,318	2,636	–	–	–	–	2,636
Other interest rate	450	–	–	450	–	–	–	–	450
	79,798	83,907	26,567	190,272	2,402	14,715	4,994	22,111	212,383
Foreign exchange contracts									
Spot	2,451	–	–	2,451	–	–	–	–	2,451
Forward	93,899	3,338	–	97,237	–	–	–	–	97,237
Currency swaps and options	17,447	7,269	2,377	27,093	–	2,008	–	2,008	29,101
	113,797	10,607	2,377	126,781	–	2,008	–	2,008	128,789
Other derivative contracts									
Commodity	209	135	–	344	–	–	–	–	344
Equity	10	7	–	17	–	–	–	–	17
	219	142	–	361	–	–	–	–	361
Total	193,814	94,656	28,944	317,414	2,402	16,723	4,994	24,119	341,533

11 Derivatives *(continued)*

Use of derivatives

The bank utilizes derivatives for three primary purposes: to create risk management solutions for clients, for trading purposes, and to manage and hedge the bank's own risks. Derivatives (except for derivatives which are designated as effective hedging instruments as defined in IAS 39) are held for trading. The held for trading classification includes two types of derivatives: those used in sales and trading activities, and those used for risk management purposes but which for various reasons do not qualify for hedge accounting. The second category includes derivatives managed in conjunction with financial instruments designated at fair value. These activities are described more fully below.

The bank's derivative activities give rise to significant open positions in portfolios of derivatives. These positions are managed constantly to ensure that they remain within acceptable risk levels in accordance with the bank's approved risk management policies, with matching deals being used to achieve this where necessary. When entering into derivative transactions, the bank employs the same credit risk management procedures that are used for traditional lending to assess and approve potential credit exposures.

Trading derivatives

Most of the bank's derivative transactions relate to sales and trading activities. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify or reduce current or expected risks. Trading activities in derivatives are entered into principally for the purpose of generating profits from short-term fluctuations in price or margin. Positions may be traded actively or be held over a period of time to benefit from expected changes in currency rates, interest rates, equity prices or other market parameters. Trading includes market-making, positioning and arbitrage activities. Market-making entails quoting bid and offer prices to other market participants for the purpose of generating revenues based on spread and volume; positioning means managing market risk positions in the expectation of benefiting from favourable movements in prices, rates or indices; arbitrage involves identifying and profiting from price differentials between markets and products.

As mentioned above, other derivatives classified as held for trading include non-qualifying hedging derivatives, ineffective hedging derivatives and the components of hedging derivatives that are excluded from assessing hedge effectiveness. Non-qualifying hedging derivatives are entered into for risk management purposes but do not meet the criteria for hedge accounting. These include derivatives managed in conjunction with financial instruments designated at fair value.

Gains and losses from changes in the fair value of derivatives, including the contractual interest, that do not qualify for hedge accounting are reported in 'Net trading income', except for derivatives managed in conjunction with financial instruments designated at fair value, where gains and losses are reported in 'Net income from financial instruments designated at fair value', together with the gains and losses on the hedged items. Where the derivatives are managed with debt securities in issue, the contractual interest is shown in 'interest expense' together with the interest payable on the issued debt.

An analysis of the derivative portfolio and related credit exposure

	2017			2016		
	Notional amount[1] **$m**	*Credit equivalent amount*[2] **$m**	*Risk-weighted balance*[3] **$m**	*Notional amount*[1] $m	*Credit equivalent amount*[2] $m	*Risk-weighted balance*[3] $m
Interest rate contracts						
Future	**22,653**	**–**	**–**	34,884	–	–
Swaps	**270,697**	**905**	**148**	174,413	718	235
Caps	**3,738**	**11**	**8**	2,636	4	2
Other interest rate	**1,863**	**2**	**–**	450	1	–
	298,951	**918**	**156**	212,383	723	237
Foreign exchange contracts						
Spot	**1,642**	**1**	**–**	2,451	–	–
Forward	**75,594**	**695**	**182**	97,237	730	172
Currency swaps and options	**34,105**	**879**	**368**	29,101	992	492
	111,341	**1,575**	**550**	128,789	1,722	664
Other derivative contracts						
Commodity	**226**	**16**	**12**	344	27	29
Equities	**7**	**–**	**–**	17	–	–
	233	**16**	**12**	361	27	29
Total	**410,525**	**2,509**	**718**	341,533	2,472	930

1 *Notional amounts are the contract amounts used to calculate the cash flows to be exchanged. They are a common measure of the volume of outstanding transactions, but do not represent credit or market risk exposure.*

2 *Credit equivalent amount is the current replacement cost plus an amount for future credit exposure associated with the potential for future changes in currency and interest rates. The future credit exposure is calculated using a formula prescribed by OSFI in its capital adequacy guidelines.*

3 *Risk-weighted balance represents a measure of the amount of regulatory capital required to support the derivative activities. It is estimated by risk weighting the credit equivalent amounts according to the credit worthiness of the counterparties using factors prescribed by OSFI in its capital adequacy guidelines.*

Interest rate futures are exchange-traded. All other contracts are over-the-counter. The notional or contractual amounts of these instruments indicate the nominal value of transactions outstanding at the reporting date; they do not represent amounts at risk.

Hedging instruments

The bank uses derivatives (principally interest rate swaps) for hedging purposes in the management of its own asset and liability portfolios and structural positions. This enables the bank to optimize the overall cost to the bank of accessing debt capital markets, and to mitigate the market risk which would otherwise arise from structural imbalances in the maturity and other profiles of its assets and liabilities.

Fair value hedges

The bank's fair value hedges principally consist of interest rate swaps that are used to protect against changes in the fair value of fixed-rate financial instruments due to movements in market interest rates. For qualifying fair value hedges, all changes in the fair value of the derivative and in the fair value of the item in relation to the risk being hedged are recognized in the income statement. If the hedge relationship is terminated, the fair value adjustment to the hedged item continues to be reported as part of the basis of the item and is amortized to the income statement as a yield adjustment over the remainder of the hedging period.

Notes on the Consolidated Financial Statements (continued)

11 Derivatives *(continued)*

Fair value of derivatives designated as fair value hedges

	2017		2016	
	Assets	*Liabilities*	*Assets*	*Liabilities*
	$m	**$m**	$m	$m
Interest rate	**146**	**31**	130	136

Gains or losses arising from the change in fair value of fair value hedges

	2017	2016
	$m	$m
Gains/(losses)		
– on hedging instruments	**158**	78
– on hedged items attributable to the hedged risk	**(159)**	(76)

The gains and losses on ineffective portions of fair value hedges are recognized immediately in 'Net trading income'.

Cash flow hedges

The bank's cash flow hedges consist principally of interest rate and cross-currency swaps that are used to protect against exposures to variability in future interest cash flows on non-trading assets and liabilities which bear interest at variable rates or which are expected to be re-funded or reinvested in the future. The amounts and timing of future cash flows, representing both principal and interest flows, are projected for each portfolio of financial assets and liabilities on the basis of their contractual terms and other relevant factors, including estimates of prepayments and defaults. The aggregate principal balances and interest cash flows across all portfolios over time form the basis for identifying gains and losses on the effective portions of derivatives designated as cash flow hedges of forecast transactions. Gains and losses are initially recognized in other comprehensive income, in the cash flow hedging reserve, and are transferred to the income statement when the forecast cash flows affect the income statement.

Fair value of derivatives designated as cash flow hedges

	2017		2016	
	Assets	*Liabilities*	*Assets*	*Liabilities*
	$m	**$m**	$m	$m
Foreign exchange	**77**	**70**	45	131
Interest rate	**2**	**72**	48	6

The schedule of forecast principal balances on which the expected interest cash flows arise as at 31 December is as follows:

	2017			
	3 months or less	*More than 3 months but less than 1 year*	*More than 1 year but less than 5 years*	*5 years or more*
	$m	**$m**	**$m**	**$m**
Assets	**7,095**	**7,095**	**6,453**	–
Liabilities	–	–	–	–
Net cash inflow exposure	**7,095**	**7,095**	**6,453**	–

	2016			
	3 months or less $m	*More than 3 months but less than 1 year* $m	*More than 1 year but less than 5 years* $m	*5 years or more* $m
Assets	7,180	6,928	6,828	485
Liabilities	–	–	–	–
Net cash inflow exposure	7,180	6,928	6,828	485

The gains and losses on ineffective portions of such derivatives are recognized immediately in 'Net trading income'. During 2017, a loss of $2m (2016: loss of $3m) was recognized due to hedge ineffectiveness.

The following tables summarize the fair values of the bank's derivative portfolio at 31 December segregated between derivatives that are in a favourable or receivable position and those in an unfavourable or payable position. Fair values of derivative instruments are determined using observable inputs (note 24).

	2017						
	Trading			**Hedging**			
	Favourable position **$m**	*Unfavourable position* **$m**	*Net position* **$m**	*Favourable position* **$m**	*Unfavourable position* **$m**	*Net position* **$m**	*Total net position* **$m**
Interest rate contracts							
Swaps	**1,980**	**(1,927)**	**53**	**148**	**(103)**	**45**	**98**
Caps	**1**	**(3)**	**(1)**	**–**	**–**	**–**	**(1)**
Other interest rate	**6**	**(7)**	**(1)**	**–**	**–**	**–**	**(1)**
	1,987	**(1,936)**	**51**	**148**	**(103)**	**45**	**96**
Foreign exchange contracts							
Spot	**2**	**(1)**	**1**	**–**	**–**	**–**	**1**
Forward	**903**	**(857)**	**46**	**–**	**–**	**–**	**46**
Currency swaps and options	**540**	**(532)**	**8**	**76**	**(70)**	**6**	**14**
	1,445	**(1,390)**	**55**	**76**	**(70)**	**6**	**61**
Other derivative contracts							
Commodity	**17**	**(17)**	**–**	**–**	**–**	**–**	**–**
Equities	**2**	**–**	**2**	**–**	**–**	**–**	**2**
	19	**(17)**	**2**	**–**	**–**	**–**	**2**
Total	**3,451**	**(3,343)**	**108**	**224**	**(173)**	**51**	**159**

Notes on the Consolidated Financial Statements (continued)

11 Derivatives *(continued)*

	2016						
	Trading			Hedging			
	Favourable position $m	*Unfavourable position* $m	*Net position* $m	*Favourable position* $m	*Unfavourable position* $m	*Net position* $m	*Total net position* $m
Interest rate contracts							
Swaps	1,129	(1,102)	27	178	(142)	36	63
Caps	2	(4)	(2)	–	–	–	(2)
Other interest rate	2	(2)	–	–	–	–	–
	1,133	(1,108)	25	178	(142)	36	61
Foreign exchange contracts	3	(2)	1	–	–	–	1
Spot	1,132	(1,112)	20	–	–	–	20
Forward	1,332	(1,319)	13	45	(131)	(86)	(73)
Currency swaps and options	2,467	(2,433)	34	45	(131)	(86)	(52)
Other derivative contracts							
Commodity	24	(24)	–	–	–	–	–
Equities	3	–	3	–	–	–	3
	27	(24)	3	–	–	–	3
Total	3,627	(3,565)	62	223	(273)	(50)	12

12 Financial investments

Financial investments comprise the following:

	2017 **$m**	2016 $m
Financial investments		
Not subject to repledge or resale by counterparties	**20,724**	24,314
Which may be repledged or resold by counterparties	**2,189**	917
	22,913	25,231
Available-for-sale		
Canadian and Provincial Government bonds[1]	**15,782**	17,901
International Government bonds[1]	**3,486**	4,117
Other debt securities issued by banks and other financial institutions	**3,326**	2,859
Treasury and other eligible bills	**290**	295
Other securities	**29**	59
	22,913	25,231

1 *Includes government guaranteed bonds.*

The term to maturity of financial investments are as follows:

	2017 **$m**	2016 $m
Term to maturity		
Less than 1 year	**2,187**	774
1–5 years	**17,484**	21,667
5–10 years	**3,218**	2,737
No specific maturity	**24**	53
	22,913	25,231

13 Interest rate sensitivity

The following table provides an analysis of the interest rate sensitivity position based on contractual repricing dates of assets and liabilities.

	2017									
	Floating rate $m	*Within 3 months* $m	*3–12 months* $m	*Average interest rate* %	*1–5 years* $m	*Average interest rate* %	*Greater than 5 years* $m	*Average interest rate* %	*Non-interest sensitive* $m	*Total* $m
Cash and balances at central bank	–	–	–		–		–		**411**	**411**
Items in the course of collection from other banks	–	–	–		–		–		**25**	**25**
Trading assets	**5,373**	–	–	**1.0**	–		–		—	**5,373**
Derivatives	–	–	–		–		–		**3,675**	**3,675**
Loans and advances to banks	–	**59**	–	**1.5**	–		–		**1,162**	**1,221**
Loans and advances to customers	**25,867**	**8,913**	**4,468**	**2.8**	**10,996**	**2.7**	**73**	**3.7**	**20**	**50,337**
Reverse repurchase agreements	–	**6,031**	**122**	**1.0**	–		–		—	**6,153**
Financial investments	–	**3,217**	**1,643**	**1.3**	**15,139**	**2.0**	**2,886**	**2.4**	**28**	**22,913**
Acceptances	–	–	–		–		–		**4,801**	**4,801**
Other assets	–	–	–		–		–		**1,308**	**1,308**
Current taxes	–	–	–		–		–		**44**	**44**
Deferred taxes	–	–	–		–		–		**118**	**118**
Total assets	**31,240**	**18,220**	**6,233**		**26,135**		**2,959**		**11,592**	**96,379**
Deposits by banks	–	**377**	–	**1.0**	–		–		**1,319**	**1,696**
Customer accounts	**30,773**	**5,208**	**7,522**	**1.0**	**1,383**	**2.0**	–		**12,168**	**57,054**
Repurchase agreements	–	**4,604**	–	**1.1**	–		–		–	**4,604**
Items in the course of transmission to other banks	–	–	–		–		–		**299**	**299**
Trading liabilities	**3,701**	–	–	**1.0**	–		–		–	**3,701**
Financial liabilities designated at fair value	–	–	–		–		–		–	–
Derivatives	–	–	–		–		–		**3,516**	**3,516**
Debt securities in issue	–	**1,157**	**1,088**	**1.7**	**6,938**	**2.4**	**1,637**	**2.6**	–	**10,820**
Other liabilities	–	–	–		–		–		**2,217**	**2,217**
Acceptances	–	–	–		–		–		**4,801**	**4,801**
Subordinated liabilities	–	**1,039**	–	**3.3**	–		–		–	**1,039**
Accruals and deferred income	–	–	–		–		–		**475**	**475**
Retirement benefit obligation	–	–	–		–		–		**346**	**346**
Provisions	–	–	–		–		–		**61**	**61**
Current taxes	–	–	–		–		–		**40**	**40**
Shareholders' equity	–	–	–		**850**	**4.2**	–		**4,860**	**5,710**
Total liabilities and shareholders' equity	**34,474**	**12,385**	**8,610**		**9,171**		**1,637**		**30,102**	**96,379**
On-balance sheet gap	**(3,234)**	**5,957**	**(2,499)**		**16,964**		**1,322**		**(18,510)**	–
Off-balance sheet positions	–	**3,277**	**(22)**		**(801)**		**(2,454)**		–	–
Total interest rate gap	**(3,234)**	**9,234**	**(2,521)**		**16,163**		**(1,132)**		**(18,510)**	–

Notes on the Consolidated Financial Statements (continued)

13 Interest rate sensitivity *(continued)*

	2016									
	Floating rate $m	*Within 3 months* $m	*3–12 months* $m	*Average interest rate* %	*1–5 years* $m	*Average interest rate* %	*Greater than 5 years* $m	*Average interest rate* %	*Non-interest sensitive* $m	*Total* $m
Cash and balances at central bank	–	–	–		–		–		66	66
Items in the course of collection from other banks	–	–	–		–		–		58	58
Trading assets	6,288	–	–	0.5	–		–			6,288
Derivatives	–	–	–		–		–		3,850	3,850
Loans and advances to banks	–	173	–	0.8	–		–		898	1,071
Loans and advances to customers	26,848	8,228	2,412	2.6	9,104	2.8	101	3.5	214	46,907
Reverse repurchase agreements	–	5,938	–	0.5	–		–		–	5,938
Financial investments	–	3,623	609	1.1	15,753	1.9	5,193	2.5	53	25,231
Acceptances	–	–	–		–		–		4,322	4,322
Other assets	–	–	–		–		–		807	807
Deferred taxes	–	–	–		–		–		119	119
Total assets	33,136	17,962	3,021		24,857		5,294		10,387	94,657
Deposits by banks	–	322	–	1	–		–		624	946
Customer accounts	31,769	5,387	5,874	0.7	1,862	2.1	–	0.9	11,782	56,674
Repurchase agreements	–	4,345	–	0.5	–		–		–	4,345
Items in the course of transmission to other banks	–	–	–		–		–		82	82
Trading liabilities	3,784	–	–	0.5	–		–		–	3,784
Financial liabilities designated at fair value	–	3	400	4.8	–		–		–	403
Derivatives	–	–	–		–		–		3,838	3,838
Debt securities in issue	–	2,387	1,001	2.3	6,731	2.4	137	2.7	–	10,256
Acceptances	–	–	–		–		–		4,322	4,322
Subordinated liabilities	–	1,039	–	2.6	–		–		–	1,039
Other liabilities	–	671	–	2.4	–		–		2,756	3,427
Provisions	–	–	–		–		–		116	116
Current taxes	–	–	–		–		–		10	10
Shareholders' equity	–	–	–		850	4.4	–		4,565	5,415
Non controlling interest	–	–	–		–		–		–	–
Total liabilities and shareholders' equity	35,553	14,154	7,275		9,443		137		28,095	94,657
On-balance sheet gap	(2,417)	3,808	(4,254)		15,414		5,157		(17,708)	–
Off-balance sheet positions	–	4,488	1,341		(1,984)		(3,845)		–	–
Total interest rate gap	(2,417)	8,296	(2,913)		13,430		1,312		(17,708)	–

14 Transfers of financial assets not qualifying for derecognition

The following table analyzes the carrying amount of financial assets as at 31 December that did not qualify for derecognition during the year and their associated financial liabilities recognized for the proceeds received as the bank did not transfer substantially all of the variability of the risks and rewards of ownership:

Financial assets and associated liabilities transferred not qualifying for derecognition are as follows:

	2017				2016	
	Fair value of assets **$m**	*Fair value of associated liabilities* **$m**	*Carrying amount of assets* **$m**	*Carrying amount of associated liabilities* **$m**	*Carrying amount of assets* $m	*Carrying amount of associated liabilities* $m
Nature of transaction						
Assets securitized..	**1,309**	**1,310**	**1,317**	**1,304**	989	980
Mortgages sold with recourse...	**1,670**	**1,670**	**1,676**	**1,676**	1,690	1,690
Repurchase agreements[1]	**3,947**	**3,947**	**3,947**	**3,947**	5,938	4,345
	6,926	**6,927**	**6,940**	**6,927**	8,617	7,015

1 *Transfers of financial assets subject to repurchase agreements are presented prior to any offsetting adjustments.*

In addition to assets securitized as noted above which did not result in derecognition of the transferred financial instruments, the bank has also created $32m (2016: $127m) of securitized assets which are collateralized by certain bank's mortgage receivables which remain on the bank's balance sheet. A liability has not been recognized as the securitized assets are held by the bank and have not been transferred to third parties. Further, the mortgage backed securities are also used as replacement assets for collateralizing in lieu of the mortgage receivables.

15 Property, plant and equipment

	Freehold land and buildings **$m**	*Leasehold improvements* **$m**	*Equipment, fixtures and fittings* **$m**	*Total* **$m**
Cost				
At 1 January 2017	**3**	**174**	**77**	**254**
Additions at cost	**–**	**17**	**18**	**35**
Disposals and write-offs	**(1)**	**(40)**	**(33)**	**(74)**
At 31 December 2017	**2**	**151**	**62**	**215**
Accumulated depreciation and impairment				
At 1 January 2017	**(2)**	**(98)**	**(50)**	**(150)**
Depreciation charge for the year	**–**	**(21)**	**(12)**	**(33)**
Disposals and write-offs	**1**	**40**	**33**	**74**
At 31 December 2017	**(1)**	**(79)**	**(29)**	**(109)**
Net carrying amount at 31 December 2017	**1**	**72**	**33**	**106**

Notes on the Consolidated Financial Statements (continued)

15 Property, plant and equipment *(continued)*

	Freehold land and buildings $m	*Leasehold improvements* $m	*Equipment, fixtures and fittings* $m	*Total* $m
Cost				
At 1 January 2016	3	167	78	248
Additions at cost	–	17	12	29
Disposals and write-offs	–	(10)	(13)	(23)
At 31 December 2016	3	174	77	254
Accumulated depreciation and impairment				
At 1 January 2016	(2)	(87)	(49)	(138)
Depreciation charge for the year	–	(20)	(13)	(33)
Disposals and write-offs	–	9	12	21
At 31 December 2016	(2)	(98)	(50)	(150)
Net carrying amount at 31 December 2016	1	76	27	104

16 Investments in subsidiaries and other entities

At 31 December 2017, HSBC Bank Canada wholly-owned the following principal subsidiaries:

Subsidiary	*Place of incorporation*	*Issued equity capital* $m
HSBC Finance Mortgages Inc.	Toronto, Ontario, Canada	410
HSBC Trust Company (Canada)	Vancouver, British Columbia, Canada	201
HSBC Securities (Canada) Inc.	Toronto, Ontario, Canada	187
HSBC Mortgage Corporation (Canada)	Vancouver, British Columbia, Canada	25
HSBC Global Asset Management (Canada) Limited	Vancouver, British Columbia, Canada	19
HSBC Private Wealth Services (Canada) Inc.	Toronto, Ontario, Canada	14
HSBC Capital (Canada) Inc.	Vancouver, British Columbia, Canada	8

Performance Trust

The bank sponsored and organized Performance Trust (‘PT’), a multi-seller asset-backed commercial paper conduit, designed to provide collateralized asset-backed financing primarily to its corporate and institutional clients in Canada. The asset-backed commercial paper structure involves PT purchasing financial instruments issued by client-sponsored special purpose entities for cash or PT providing asset-backed financing directly to its clients. PT funds the eligible assets through a Funding Agreement between PT and Regency Trust Inc. (‘Regency’), a multi-seller asset-backed commercial paper conduit sponsored by and consolidated into another HSBC group entity.

The bank is the financial services agent for PT for a market-based fee. As the agent, we are responsible for arranging transactions between clients and PT. As at 31 December 2017, PT had no outstanding activity or balances. The bank provided liquidity facilities to Regency to backstop the liquidity risk of the commercial paper issued by Regency to fund their clients.

Mortgage Backed Securities

The bank periodically creates National Housing Act Mortgage Backed Securities with certain of the bank’s mortgages identified as collateral for such securities and issues these legally created securities to Canada Housing Trust, a structured entity sponsored by Canada Mortgage and Housing Corporation, which issues Canada Mortgage Bonds. The bank does not have any decision-making power over Canada Housing Trust. The bank’s only exposure to the Trust is derived from the contractual arrangements arising from the legal transfer of the mortgage backed securities and related collateral. Additional information can be found on note 14 in respect to assets securitized.

16 Investments in subsidiaries and other entities *(continued)*

HSBC Investment funds

The bank establishes and manages investment funds such as mutual funds and pooled funds, acts as an investment manager and earns market-based management fees. The bank does not consolidate those mutual and pooled funds in which our interests indicated that we are exercising our decision making power as an agent of the other unit holder. Seed capital is provided from time to time to HSBC managed investment funds for initial launch. The bank consolidates those investment funds in which it has power to direct the relevant activities of the funds and in which the seed capital, or the units held by the bank, are significant relative to the total variability of returns of the funds such that the bank is deemed to be a principal rather than an agent.

HSBC Mortgage Fund

The bank periodically transfers mortgages to the HSBC Mortgage Fund (the 'fund') in accordance with the investment parameters of the fund and recognizes a liability for mortgages sold with recourse for the initial proceeds received. The bank provides an undertaking to repurchase mortgages which are in arrears for a period that is greater than 90 days and repurchases mortgages in certain circumstances when an individual mortgage is prepaid in full. In addition to these obligations the bank provides a liquidity arrangement to the HSBC Mortgage Fund whereby if the level of redemption requests by unitholders cannot be met by the fund the bank will either repurchase such funds as are deemed necessary by the HSBC Mortgage Fund to satisfy the liquidity requirements arising from unitholder requests or facilitate the purchase of such mortgages by a third party at the bank's discretion. The bank has not received any such liquidity requests from the fund in respect of unitholder redemptions. The fund is not consolidated as the bank does not have control over the fund as it has insufficient absolute returns or variability of returns to consolidate the fund. Information on mortgages sold with recourse can be found in note 14.

17 Other assets

	2017	2016
	$m	$m
Accounts receivable and other	**774**	325
Investments in associates	**40**	46
Due from clients, dealers and clearing corporations	**73**	37
Other non-financial assets	**12**	9
	899	417

18 Goodwill and intangible assets

	2017	2016
	$m	$m
Goodwill	**23**	23
Computer software	**67**	47
	90	70

No goodwill impairment was recognized in 2017 or 2016.

Notes on the Consolidated Financial Statements (continued)

19 Trading liabilities

	2017 $m	2016 $m
Other liabilities – net short positions	**3,533**	3,589
Customer trading liabilities	**168**	152
Trading liabilities due to other banks	**–**	43
	3,701	3,784

20 Debt securities in issue

	2017 $m	2016 $m
Bonds and medium-term notes	**10,141**	9,987
Money market instruments	**679**	269
	10,820	10,256

Debt securities are recorded at amortized cost.

Term to maturity		
Less than 1 year	**1,631**	3,874
1–5 years	**7,428**	6,284
5–10 years	**1,761**	98
Over 10 years	**–**	–
	10,820	10,256

21 Financial liabilities designated at fair value

On 10 April 2017 the bank has, in accordance with their terms, redeemed the debentures at 100% of their principal amount plus accrued interest to the redemption date. The redemption was financed out of the general corporate funds of the bank. Please refer to note 23 for more information on the subordinated debentures.

At redemption date, the carrying amount of financial liabilities designated at fair value was the $400m contractual amount at maturity while the cumulative amount of change in fair value attributable to changes in credit risk was a $3m gain.

22 Other liabilities

	2017 $m	2016 $m
Mortgages sold with recourse	**1,676**	1,690
Loans payable	**–**	671
Accounts payable	**479**	186
Other non-financial liabilities	**49**	52
Share based payment related liability	**13**	11
	2,217	2,610

23 Subordinated liabilities

Subordinated debentures, which are unsecured and subordinated in right of payment to the claims of depositors and certain other creditors, comprise:

Interest rate (%)	*Year of maturity*	Carrying amount **2017 $m**	2016 $m
Issued to Group			
3 month Canadian Dollar Offered Rate plus 1.92[1]	2028	**1,000**	–
3 month Canadian Dollar Offered Rate plus 1.735[2]	2023	–	1,000
Issued to third parties			
4.80[3]	2022	–	403
30 day bankers' acceptance rate plus 0.50%	2083	**39**	39
Total debt and debentures		**1,039**	1,442
Less: designated at fair value (note 21)		–	(403)
Debt and debentures at amortized cost		**1,039**	1,039

1 *The interest is payable at an annual rate equal to the 3 month Canadian Dollar Offered Rate plus 1.92%. The subordinated debt was issued on 5 June 2017 and includes non-viability contingency capital (NVCC) provisions, necessary for the instrument to qualify as Tier 2 regulatory capital under Basel III. In the event that OSFI determines that a regulatory defined non-viability trigger event has occurred, NVCC provisions require the full and permanent write off of the subordinated debt .*

2 *The interest rate was fixed at 2.6576% until March 2017 and thereafter interest was payable at an annual rate equal to the 3 month Canadian Dollar Offered Rate plus 1.735%. On 5 June 2017 the bank redeemed this liability to Group at 100% of its principal amount plus accrued interest to the redemption date.*

3 *The interest rate was fixed at 4.80% until April 2017 and thereafter interest was payable at an annual rate equal to the 90 day bankers' acceptance rate plus 1.00%. These debentures were designated as held for trading under the fair value option. On 10 April 2017 the bank has, in accordance with their terms, redeemed the debentures at 100% of their principal amount plus accrued interest to the redemption date. The redemption was financed out of the general corporate funds of the bank.*

24 Fair values of financial instruments

Control framework

Fair values are subject to a control framework designed to ensure that they are either determined, or validated, by a function independent of the risk-taker. To this end, ultimate responsibility for the determination of fair values lies with the bank's finance department, ('Finance'). Finance establishes the accounting policies and procedures governing valuation, and is responsible for ensuring that they comply with all relevant accounting standards.

For all financial instruments where fair values are determined by reference to externally quoted prices or observable pricing inputs to models, independent price determination or validation is utilized. In inactive markets, direct observation of a traded price may not be possible. In these circumstances, the bank will source alternative market information to validate the financial instrument's fair value, with greater weight given to information that is considered to be more relevant and reliable. The factors that are considered in this regard are, inter alia:

– the extent to which prices may be expected to represent genuine traded or tradable prices;

– the degree of similarity between financial instruments;

– the degree of consistency between different sources;

– the process followed by the pricing provider to derive the data;

– the elapsed time between the date to which the market data relates and the reporting date; and

– the manner in which the data was sourced.

Models provide a logical framework for the capture and processing of necessary valuation inputs. For fair values determined using a valuation model, the control framework may include, as applicable, independent development or validation of (i) the logic within valuation models; (ii) the inputs to those models; (iii) any adjustments required outside the valuation models; and (iv) where possible, model outputs. Valuation models are subject to a process of due diligence and calibration before becoming operational and are calibrated against external market data on an ongoing basis.

24 Fair values of financial instruments *(continued)*

Determination of fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal, or in its absence, the most advantageous market to which the bank has access to at that date. The fair value of a liability reflects its non-performance risk.

Fair values are determined according to the following hierarchy:

Level 1 – quoted market price: financial instruments with quoted prices for identical instruments in active markets.

Level 2 – valuation technique using observable inputs: financial instruments with quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in inactive markets and financial instruments valued using models where all significant inputs are observable.

Level 3 – valuation technique with significant unobservable inputs: financial instruments valued using models where one or more significant inputs are unobservable.

The best evidence of fair value is a quoted price in an actively traded market. In the event that the market for a financial instrument is not active, a valuation technique is used. The judgment as to whether a market is active may include, but is not restricted to, the consideration of factors such as the magnitude and frequency of trading activity, the availability of prices and the size of bid/offer spreads. In inactive markets, obtaining assurance that the transaction price provides evidence of fair value or determining the adjustments to transaction prices that are necessary to measure the fair value of the instrument requires additional work during the valuation process.

Valuation techniques incorporate assumptions about factors that other market participants would use in their valuations. A range of valuation techniques is employed, dependent upon the instrument type and available market data. Most valuation techniques are based upon discounted cash flow analysis, in which expected future cash flows are calculated and discounted to present value using a discounting curve. Prior to consideration of credit risk, the expected future cash flows may be known, as would be the case for the fixed leg of an interest rate swap, or may be uncertain and require projection, as would be the case for the floating leg of an interest rate swap. The valuation techniques the bank applies utilize market forward curves, if available. In option models, the probability of different potential future outcomes must be considered. In addition, the value of some products are dependent upon more than one market factor, and in these cases it will typically be necessary to consider how movements in one market factor may impact the other market factors. The model inputs necessary to perform such calculations include interest rate yield curves, exchange rates, volatilities, correlations, prepayment and default rates.

The majority of valuation techniques employ only observable market data and so the reliability of the fair value measurement is high. However, certain financial instruments are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable, and for them, the derivation of fair value is more judgmental. An instrument in its entirety is classified as valued using significant unobservable inputs if, in the opinion of management, a significant proportion of the instrument's carrying amount and/or inception profit ('day 1 gain and loss') is driven by unobservable inputs. 'Unobservable' in this context means that there is little or no current market data available from which to determine the level at which an arm's length transaction would be likely to occur. It generally does not mean that there is no market data available at all upon which to base a determination of fair value (consensus pricing data may, for example, be used). Furthermore, in some cases the majority of the fair value derived from a valuation technique with significant unobservable inputs may be attributable to the observable inputs. Consequently, the effect of uncertainty in the determining unobservable inputs will generally be restricted to uncertainty about the overall fair value of the financial instrument being measured.

24 Fair values of financial instruments *(continued)*

Determination of fair value (continued)

In certain circumstances, primarily where debt is hedged with interest rate derivatives or structured notes issued, the bank uses fair value to measure the carrying value of its own debt in issue. The bank records its own debt in issue at fair value, based on quoted prices in an active market for the specific instrument concerned, if available. When quoted market prices are unavailable, the own debt in issue is valued using valuation techniques, the inputs for which are either based upon quoted prices in an inactive market for the instrument, or are estimated by comparison with quoted prices in an active market for similar instruments. In both cases, the fair value includes the effect of applying the credit spread which is appropriate to the bank's liabilities. For all issued debt securities, discounted cash flow modeling is used to separate the change in fair value that may be attributed to the bank's credit spread movements from movements in other market factors such as benchmark interest rates or foreign exchange rates. Specifically, the change in fair value of issued debt securities attributable to the bank's own credit spread is computed as follows: for each security at each reporting date, an externally verifiable price is obtained or a price is derived using credit spreads for similar securities for the same issuer. Then, using discounted cash flow, each security is valued using a risk-free discount curve. The difference in the valuations is attributable to the bank's own credit spread. This methodology is applied consistently across all securities.

Structured notes issued and certain other hybrid instrument liabilities are included within trading liabilities and are measured at fair value. The credit spread applied to these instruments is derived from the spreads at which the bank would issue structured notes.

Gains and losses arising from changes in the credit spread of liabilities issued by the bank reverse over the contractual life of the debt, provided that the debt is not repaid early. All positions in non-derivative financial instruments, and all derivative portfolios, are valued at bid or offer prices as appropriate. Long positions are marked at bid prices; short positions are marked at offer prices.

The fair value of a portfolio of financial instruments quoted in an active market is calculated as the product of the number of units and its quoted price and no block discounts are made.

Transaction costs are not included in the fair value calculation, nor are the future costs of administering the over the counter derivative portfolio. These, along with trade origination costs such as brokerage fees and post-trade costs, are included either in 'Fee expense' or in 'Total operating expenses'.

A detailed description of the valuation techniques applied to instruments of particular interest follows:

– *Private equity*

  The bank's private equity portfolios are classified as investments in associates held at fair value, and are not traded in active markets. In the absence of an active market, an investment's fair value is estimated on the basis of an analysis of the investee's financial position and results, risk profile, prospects and other factors, as well as by reference to market valuations for similar entities quoted in an active market, or the price at which similar companies have changed ownership. The exercise of judgment is required because of uncertainties inherent in estimating fair value for private equity investments.

– *Debt securities, treasury and other eligible bills, and equities*

  The fair value of these instruments is based on quoted market prices from an exchange, dealer, broker, industry group or pricing service, when available. When unavailable, the fair value is determined by reference to quoted market prices for similar instruments, adjusted as appropriate for the specific circumstances of the instruments.

  In the absence of quoted market prices, fair value is determined using valuation techniques based on the calculation of the present value of expected future cash flows of the assets. The inputs to these valuation techniques are derived from observable market data and, where relevant, assumptions in respect of unobservable inputs.

Notes on the Consolidated Financial Statements (continued)

24 Fair values of financial instruments *(continued)*

Determination of fair value (continued)

– *Derivatives*

Over-the-counter (i.e. non-exchange traded) derivatives are valued using valuation models. Valuation models calculate the present value of expected future cash flows, based upon 'no-arbitrage' principles. For many vanilla derivative products, such as interest rate swaps and European options, the modeling approaches used are standard across the industry. For more complex derivative products, there may be some differences in market practice. Inputs to valuation models are determined from observable market data wherever possible, including prices available from exchanges, dealers, brokers or providers of consensus pricing. Certain inputs may not be observable in the market directly, but can be determined from observable prices via model calibration procedures. Finally, some inputs are not observable, but can generally be estimated from historical data or other sources. Examples of inputs that are generally observable include foreign exchange spot and forward rates, benchmark interest rate curves and volatility surfaces for commonly traded option products. Examples of inputs that may be unobservable include volatility spreads, in whole or in part, for less commonly traded option products, and correlations between market factors such as foreign exchange rates, interest rates and equity prices.

HSBC views the Overnight Indexed Swap ('OIS') curve as the base discounting curve for all derivatives, both collateralized and uncollateralized, and utilizes a 'funding fair value adjustment' to reflect the funding of uncollateralized derivative exposure at rates other than OIS.

Derivative products valued using valuation techniques with significant unobservable inputs comprise certain long-dated foreign exchange options.

– *Structured notes*

The fair value of structured notes is derived from the fair value of the underlying debt security as described above, and the fair value of the embedded derivative is determined as described in the paragraph above on derivatives.

Trading liabilities valued using a valuation technique with significant unobservable inputs comprised equity-linked structured notes, which are issued by HSBC and provide the counterparty with a return that is linked to the performance of certain equity securities. The notes are classified as Level 3 due to the unobservability of parameters such as long-dated equity volatilities, correlations between equity prices and interest rates and between interest rates and foreign exchange rates.

24 Fair values of financial instruments *(continued)*

Bases of valuing financial assets and liabilities measured at fair value

The table below provides an analysis of the various bases described above which have been deployed for valuing financial assets and financial liabilities measured at fair value in the consolidated financial statements.

	Valuation techniques			
	Level 1 Quoted market price	*Level 2 using observable inputs*	*Level 3 with significant unobservable inputs*	*Total*
	$m	**$m**	**$m**	**$m**
At 31 December 2017				
Assets				
Trading assets	**4,695**	**678**	**–**	**5,373**
Derivatives	**–**	**3,674**	**1**	**3,675**
Financial investments: available-for-sale	**21,849**	**1,064**	**–**	**22,913**
Liabilities				
Trading liabilities	**3,503**	**197**	**1**	**3,701**
Financial liabilities at fair value	**–**	**–**	**–**	**–**
Derivatives	**–**	**3,515**	**1**	**3,516**
At 31 December 2016				
Assets				
Trading assets	5,488	800	–	6,288
Derivatives	–	3,849	1	3,850
Financial investments: available-for-sale	21,396	3,835	–	25,231
Liabilities				
Trading liabilities	3,370	411	3	3,784
Financial liabilities at fair value	–	403	–	403
Derivatives	–	3,837	1	3,838

Transfers between Level 1 and 2 of the fair value hierarchy are dependent on whether fair value is obtained on the basis of quoted market price in active markets (Level 1). During the fourth quarter of 2017, the bank further refined the valuation input that define an active market and transferred $2.9bn from Level 2 to Level 1 in trading assets, financial investments and trading liabilities. There were no significant transfers of assets and liabilities between Level 1 and 2 of the fair value hierarchy in 2016.

Reconciliation of fair value measurements in Level 3 of the fair value hierarchy

	Assets	Liabilities	
	Derivatives	*Held for trading*	*Derivatives*
	$m	**$m**	**$m**
At 1 January 2017	**1**	**3**	**1**
Total gains or losses recognized in profit or loss	**–**	**–**	**–**
Settlements	**(1)**	**(2)**	**(1)**
Transfer out	**–**	**–**	**–**
Transfer in	**1**	**–**	**1**
At 31 December 2017	**1**	**1**	**1**
Total gains or losses recognized in profit or loss relating to those assets and liabilities held at the end of the reporting period	**–**	**–**	**–**

Notes on the Consolidated Financial Statements (continued)

24 Fair values of financial instruments *(continued)*

Reconciliation of fair value measurements in Level 3 of the fair value hierarchy (continued)

	Assets	Liabilities	
	Derivatives	*Held for trading*	*Derivatives*
	$m	$m	$m
At 1 January 2016	–	6	–
Total gains or losses recognized in profit or loss	–	–	–
Settlements	(1)	(3)	(1)
Transfer out	–	–	–
Transfer in	2	–	2
At 31 December 2016	1	3	1
Total gains or losses recognized in profit or loss relating to those assets and liabilities held at the end of the reporting period	–	–	–

For assets and liabilities classified as held for trading, realized and unrealized gains and losses are presented in the income statement under 'Trading income excluding net interest income'. The income statement line item 'Net income from financial instruments designated at fair value' captures fair value movements on all other financial instruments designated at fair value and related derivatives.

Realized gains and losses from available-for-sale securities are presented under 'Gains less losses from financial investments' in the income statement while unrealized gains and losses are presented in 'Fair value gains' taken to equity within 'Available-for-sale investments' in other comprehensive income.

Fair values of financial instruments not carried at fair value

Fair values at the balance sheet date of the assets and liabilities set out below are estimated for the purpose of disclosure as follows:

i) *Loans and advances to banks and customers*

The fair value of loans and advances is based on observable market transactions, where available. In the absence of observable market transactions, fair value is estimated using discounted cash flow models. Performing loans are grouped, as far as possible, into homogeneous pools segregated by maturity and coupon rates. In general, contractual cash flows are discounted using the bank's estimate of the discount rate that a market participant would use in valuing instruments with similar maturity, repricing and credit risk characteristics.

The fair value of a loan portfolio reflects both loan impairments at the reporting date and estimates of market participants' expectations of credit losses over the life of the loans. For impaired loans, fair value is estimated by discounting the future cash flows over the time period in which they are expected to be recovered.

ii) *Deposits by banks and customer accounts*

For the purposes of estimating fair value, deposits by banks and customer accounts are grouped by residual maturity. Fair values are estimated using discounted cash flows, applying current rates offered for deposits of similar remaining maturities. The fair value of a deposit repayable on demand approximates its book value.

iii) *Debt securities in issue and subordinated liabilities*

Fair values are determined using quoted market prices at the reporting date where available, or by reference to quoted market prices for similar instruments.

24 Fair values of financial instruments *(continued)*

Fair values of financial instruments not carried at fair value (continued)

The fair values in this note are stated at a specific date and may be significantly different from the amounts which will actually be paid on the maturity or settlement dates of the instruments. In many cases, it would not be possible to realize immediately the estimated fair values given the size of the portfolios measured. Accordingly, these fair values do not represent the value of these financial instruments to the bank as a going concern.

For all classes of financial instruments, fair value represents the product of the value of a single instrument, multiplied by the number of instruments held.

The following table lists financial instruments whose carrying amount is a reasonable approximation of fair value because, for example, they are short-term in nature or reprice to current market rates frequently:

Assets	*Liabilities*
Cash and balances at central bank	Items in the course of transmission to other banks
Items in the course of collection from other banks	Deposits by banks
Loans and advances to banks	Acceptances
Customers' liability under acceptances	Short-term payables within 'Other liabilities'
Short-term receivables within 'Other assets'	Accruals
Reverse repurchase agreements	Repurchase agreements
Accrued income	

Fair values of financial instruments which are not carried at fair value on the consolidated balance sheet are as follows:

	2017					2016	
	Carrying amount **$m**	*Fair value* **$m**	*Level 1 Quoted market price* **$m**	*Level 2 using observable inputs* **$m**	*Level 3 with significant unobservable inputs* **$m**	*Carrying amount* $m	*Fair value* $m
Assets							
Loans and advances to customers[1]	**50,337**	**50,227**	–	**88**	**50,139**	46,907	46,931
Liabilities							
Customer accounts	**57,054**	**57,071**	–	**44,007**	**13,064**	56,674	56,706
Debt securities in issue	**10,820**	**10,836**	–	**10,836**	–	10,256	10,361
Subordinated liabilities	**1,039**	**1,035**	–	**1,035**	–	1,039	1,024

1 *Loans and advances to customers specifically relating to Canada: Carrying amount $46,990m and Fair value $46,888m.*

Notes on the Consolidated Financial Statements (continued)

25 Assets charged as security for liabilities and collateral accepted as security for assets

Assets charged as security for liabilities and contingent obligations

In the ordinary course of business, we pledge assets recorded on our consolidated balance sheet in relation to securitization activity, mortgages sold with recourse, securities lending and securities sold under repurchase agreements. These transactions are conducted under terms that are usual and customary to standard securitization, mortgages sold with recourse, securities lending and repurchase agreements. In addition, we also pledge assets to secure our obligations within payment and depository clearing systems.

Financial assets pledged to secure recognized liabilities on the balance sheet and obligations within payment and depository clearing systems:

	2017	2016
	$m	$m
Cash	**217**	290
Residential mortgages	**2,937**	2,679
Debt securities	**4,965**	4,601
	8,119	7,570

The bank is required to pledge assets to secure its obligations in the Large Value Transfer System ('LVTS'), which processes electronically in real-time large value and time-critical payments in Canada. In the normal course of business, pledged assets are released upon settlement of the bank's obligations at the end of each business day. Only in very rare circumstances are we required to borrow from the Bank of Canada to cover any settlement obligations. Under those circumstances, the pledged assets would be used to secure the borrowing. No amounts were outstanding under this arrangement at 31 December 2017 or 2016. Consequently, the assets pledged with respect to the bank's LVTS obligations have not been included in the table above.

Collateral accepted as security for assets

The fair value of financial assets accepted as collateral that the bank is permitted to sell or repledge in the absence of default is $8,001m (2016: $7,880m). The fair value of financial assets accepted as collateral that have been sold or repledged is $5,606m (2016: $5,090m). The bank is obliged to return equivalent assets.

These transactions are conducted under terms that are usual and customary to standard securities borrowing and reverse repurchase agreements.

26 Share capital

Authorized:

Preferred – Unlimited number of Class 1 preferred shares in one or more series and unlimited number of Class 2 preferred shares in one or more series. We may, from time to time, divide any unissued Class 1 preferred shares into separate series and fix the number of shares in each series along with the associated rights, privileges, restrictions and conditions.

Common – Unlimited number of common shares.

Issued and fully paid:

	2017		2016	
	Number of shares	*Share capital* **$m**	*Number of shares*	*Share capital* $m
Preferred shares Class 1				
Series C[1]	–	–	7,000,000	175
Series D[2]	–	–	7,000,000	175
Series G[3]	**20,000,000**	**500**	20,000,000	500
Series I[4]	**14,000,000**	**350**	–	–
	34,000,000	**850**	34,000,000	850
Common shares	**498,668,000**	**1,225**	498,668,000	1,225

1 *The shares are non-voting, non-cumulative and redeemable. Each share yields 5.1%, payable quarterly, as and when declared. During 2017 and 2016, $9m in dividends were declared and paid. On 31 December 2017, the shares were redeemed in accordance with their terms, for cash. See note 27 for more information.*

2 *The shares are non-voting, non-cumulative and redeemable. Each share yields 5%, payable quarterly, as and when declared. During 2017 and 2016, $9m in dividends were declared and paid. On 31 December 2017, the shares were redeemed in accordance with their terms, for cash. See note 27 for more information.*

3 *The shares are non-voting, non-cumulative and redeemable. Each share yields 4%, payable quarterly, as and when declared. Subject to regulatory approval, the bank may on 30 June 2020 and every 5 years thereafter, redeem a portion or all of the Series G shares at a cash redemption price of $25 per share. The shares include non-viability contingency capital (NVCC) provisions, necessary for the shares to qualify as Tier 1 regulatory capital under Basel III. In the event that OSFI determines that a regulatory defined non-viability trigger event has occurred, NVCC provisions require the write off and cancellation of the Series G shares against equity.*

4 *The shares are non-voting, non-cumulative and redeemable. The first such dividend, if declared, is payable on 31 March 2018 in the amount of $0.37 per share. Thereafter, each share yields 4.6%, payable quarterly, as and when declared. Subject to regulatory approval, the bank may on 31 December 2022 and every 5 years thereafter, redeem a portion or all of the Series I shares at a cash redemption price of $25 per share. The shares include non-viability contingency capital (NVCC) provisions, necessary for the shares to qualify as Tier 1 regulatory capital under Basel III. In the event that OSFI determines that a regulatory defined non-viability trigger event has occurred, NVCC provisions require the write off and cancellation of the Series I shares against equity.*

Notes on the Consolidated Financial Statements (continued)

27 Notes on the statement of cash flows

Non-cash items included in profit before tax	**2017 $m**	2016 $m
Depreciation and amortization	**47**	43
Share-based payment expense	**7**	10
Loan impairment charges and other credit risk provisions	**(108)**	107
Charge for defined benefit pension plans	**14**	16
	(40)	176

Change in operating assets		
Change in prepayment and accrued income	**(27)**	8
Change in net trading securities and net derivatives	**599**	(635)
Change in loans and advances to customers	**(3,322)**	1,364
Change in reverse repurchase agreements – non-trading	**(244)**	877
Change in other assets	**(988)**	(736)
	(3,982)	878

Change in operating liabilities		
Change in accruals and deferred income	–	1
Change in deposits by banks	**750**	(1,103)
Change in customer accounts	**380**	1,585
Change in repurchase agreements – non-trading	**259**	(2,261)
Change in debt securities in issue	**567**	(640)
Change in financial liabilities designated at fair value	**(3)**	(11)
Change in other liabilities	**279**	707
	2,232	(1,722)

Cash and cash equivalents		
Cash and balances at central bank[1]	**411**	66
Items in the course of collection from other banks, net	**(274)**	(24)
Loans and advances to banks of one month or less	**1,221**	1,071
Reverse repurchase agreements with banks of one month or less	**414**	443
T-Bills and certificates of deposits – three months or less	**108**	94
	1,880	1,650

1 *At 31 December 2017, $355m of cash is restricted for redemption at principal ($350m) and dividends ($5m) of Preferred shares Class 1, Series C & D, payable on the next business day.*

28 Contingent liabilities, contractual commitments and guarantees

	2017	2016
	$m	$m
Guarantees and other contingent liabilities		
Guarantees and irrevocable letters of credit pledged as collateral security	**5,582**	5,780
Commitments		
Undrawn formal standby facilities, credit lines and other commitments to lend[1]	**40,063**	38,493
Documentary credits and short-term trade-related transactions	**400**	483
	40,463	38,976

1 *Based on original contractual maturity.*

The table above discloses the nominal principal amounts of commitments, guarantees and other contingent liabilities. They are mainly credit-related instruments which include both financial and non-financial guarantees and commitments to extend credit. Nominal principal amounts represent the amounts at risk should contracts be fully drawn upon and clients default. As a significant portion of guarantees and commitments is expected to expire without being drawn upon, the total of these nominal principal amounts is not representative of future liquidity requirements.

Guarantees

The bank provides guarantees and similar undertakings on behalf of both third party customers and other entities within the bank. These guarantees are generally provided in the normal course of the bank's banking business. The principal types of guarantees provided, and the maximum potential amount of future payments which the bank could be required to make at 31 December, were as follows:

	2017	2016
Guarantees in favour of third parties	$m	$m
Guarantee type		
Financial guarantee contracts[1]	**2,094**	2,632
Performance bonds[2]	**3,488**	3,148
	5,582	5,780

1 *Financial guarantees contracts require the issuer to make specified payments to reimburse the holder for a loss incurred because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument. The amounts in the above table are nominal principal amounts.*

2 *Performance bonds, bid bonds, standby letters of credit and other transaction-related guarantees are undertakings by which the obligation on the bank and/or the bank to make payment depends on the outcome of a future event.*

The amounts disclosed in the above table reflect the bank's maximum exposure under a large number of individual guarantee undertakings. The risks and exposures arising from guarantees are captured and managed in accordance with the bank's overall credit risk management policies and procedures. Guarantees with terms of more than one year are subject to the bank's annual credit review process.

Notes on the Consolidated Financial Statements (continued)

29 Lease commitments

Operating lease commitments

At 31 December 2017, the bank was obligated under a number of non-cancellable operating leases for land and buildings for which the future minimum lease payments extend over a number of years, with an option to renew after that period. Base rents are increased as according to the terms stated in the lease.

	Land and buildings	
	2017	2016
	$m	$m
Future minimum lease payments under non-cancellable operating leases expiring		
No later than one year	**47**	48
Later than one year and no later than five years	**115**	123
Later than five years	**27**	29
	189	200

In 2017, $55m (2016: $57m) was charged to 'General and administrative expenses' in respect of lease and sublease agreements, all of which related to minimum lease payments.

Finance lease receivables

The bank leases a variety of assets to third parties under finance leases, including transport assets, property and general plant and machinery. At the end of the lease terms, assets may be sold to third parties or leased for further terms. Lessees may participate in any sales proceeds achieved. Lease rentals arising during the lease terms will either be fixed in quantum or be varied to reflect changes in, for example, tax or interest rates. Rentals are calculated to recover the cost of assets less their residual value, and earn finance income.

	2017			2016		
	Total future minimum payment	*Unearned finance income*	*Present value*	*Total future minimum payment*	*Unearned finance income*	*Present value*
	$m	**$m**	**$m**	$m	$m	$m
Less receivables:						
No later than one year	**615**	**(47)**	**568**	650	(49)	601
Later than one year and no later than five years	**1,225**	**(59)**	**1,166**	1,189	(64)	1,125
Later than five years	**76**	**(3)**	**73**	108	(5)	103
	1,916	**(109)**	**1,807**	1,947	(118)	1,829

At 31 December 2017, unguaranteed residual values of $20m (2016: $13m) had been accrued, and the accumulated allowance for uncollectible minimum lease payments is included in loan loss allowances.

During the year, no contingent rents were received (2016: $nil) and recognized in the income statement.

30 Related party transactions

The ultimate parent company of the bank is HSBC Holdings, which is incorporated in England. The bank's related parties include the parent, fellow subsidiaries, and Key Management Personnel.

a *Transactions with Key Management Personnel*

Key Management Personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of the bank and includes members of the Board of HSBC Bank Canada.

Compensation of Key Management Personnel

The following represents the compensation paid to the Key Management Personnel of the bank in exchange for services rendered to the bank.

	2017	2016
	$m	$m
Short-term employee benefits	**15**	13
Post-employment benefits	**1**	1
Share-based payments	**3**	3
	19	17

Other transactions, arrangements and agreements involving Key Management Personnel

The disclosure of the year end balance and the highest balance during the year is considered the most meaningful information to represent transactions during the year. The transactions below were made in the ordinary course of business and on substantially the same terms, including interest rates and security, as for comparable transactions with persons of a similar standing or, where applicable, with other employees. The transactions did not involve more than the normal risk of repayment or present other unfavourable features.

	2017		2016	
	Highest balance during the year	*Balance at 31 December*	*Highest balance during the year*	*Balance at 31 December*
	$m	**$m**	$m	$m
Key Management Personnel[1]				
Loans	**9.9**	**8.9**	5.3	4.6
Credit cards	**0.3**	**0.2**	0.1	0.1

1 *Includes Key Management Personnel, close family members of Key Management Personnel and entities which are controlled, jointly controlled or significantly influenced, or for which significant voting power is held, by Key Management Personnel or their close family member.*

Notes on the Consolidated Financial Statements (continued)

30 Related party transactions *(continued)*

b *Transactions between the bank and HSBC Group*

Transactions detailed below include amounts due to/from the bank and HSBC Group. The disclosure of the year end balance and the highest balance during the year is considered the most meaningful information to represent transactions during the year. The transactions below were made in the ordinary course of business and on substantially the same terms, including interest rates and security, as for comparable transactions with third party counterparties. Certain collateral for derivatives are handled by other HSBC Group affiliates who have agreements with selected clearing houses and exchanges.

	2017		2016	
	Highest balance during the year	*Balance at 31 December*	*Highest balance during the year*	*Balance at 31 December*
	$m	**$m**	$m	$m
Assets				
Trading assets	**945**	**161**	201	18
Derivatives	**2,785**	**2,687**	2,471	2,240
Loans and advances to banks	**1,381**	**634**	632	525
Loans and advances to customers	**2,243**	**278**	359	21
Other assets	**53**	**41**	40	30
Liabilities				
Deposits by banks	**1,046**	**843**	1,501	538
Customer accounts	**1,723**	**1,354**	3,565	1,058
Derivatives	**2,584**	**2,518**	2,158	2,050
Trading liabilities	**321**	**84**	1,221	131
Other liabilities	**799**	**35**	1,592	736
Subordinated liabilities	**1,000**	**1,000**	1,000	1,000

The bank has issued Class 1 Preferred Shares Series I that are non-voting non-cumulative and redeemable to HSBC Overseas Holdings (UK) Limited on 7 December 2017. See note 26 for more information.

	2017	2016
	$m	$m
Income Statement		
Interest income	**22**	13
Interest expense	**(53)**	(37)
Fee income	**27**	19
Fee expense	**(11)**	(5)
Other operating income	**73**	62
General and administrative expenses	**(165)**	(169)

31 Offsetting of financial assets and financial liabilities

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements are as follows:

	Gross amounts of recognized financial assets $m	Gross amounts set off in the balance sheet $m	Amounts presented in the balance sheet $m	Amounts not set off in the balance sheet: Financial instruments $m	Amounts not set off in the balance sheet: Non-cash collateral received $m	Amounts not set off in the balance sheet: Cash collateral received $m	Net amount $m
At 31 December 2017							
Derivatives[1,2] (note 11)	**3,997**	**(74)**	**3,923**	**368**	**42**	**234**	**3,279**
Reverse repurchase, securities borrowing and similar agreements:							
– Loan and advances to banks at amortized cost	**503**	**(89)**	**414**	**–**	**414**	**–**	**–**
– Loan and advances to customers at amortized cost	**7,519**	**(1,780)**	**5,739**	**–**	**5,739**	**–**	**–**
Loans and advances excluding reverse repos							
– to customers at amortized cost	**1,111**	**–**	**1,111**	**780**	**–**	**–**	**331**
	13,130	**(1,943)**	**11,187**	**1,148**	**6,195**	**234**	**3,610**
At 31 December 2016							
Derivatives[2] (note 11)	3,850	–	3,850	909	–	36	2,905
Reverse repurchase, securities borrowing and similar agreements:							
– Loan and advances to banks at amortized cost	497	(54)	443	–	443	–	–
– Loan and advances to customers at amortized cost	7,376	(1,881)	5,495	–	5,495	–	–
Loans and advances excluding reverse repos							
– to customers at amortized cost	1,429	–	1,429	–	–	–	1,429
	13,152	(1,935)	11,217	909	5,938	36	4,334

1 *Includes gross trading assets of $322m, of which, $74m have been set off in the balance sheet.*

2 *Includes derivative amounts that are both subject to and not subject to enforceable master netting agreements and similar agreements.*

Notes on the Consolidated Financial Statements (continued)

31 Offsetting of financial assets and financial liabilities *(continued)*

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements are as follows:

	Gross amounts of recognized financial liabilities $m	Gross amounts set off in the balance sheet $m	Amounts presented in the balance sheet $m	Amounts not set off in the balance sheet: Financial instru-ments $m	Non-cash collateral pledged $m	Cash collateral pledged $m	Net amount $m
At 31 December 2017							
Derivatives[1,2] (note 11)	**3,758**	**(74)**	**3,684**	**368**	**99**	**61**	**3,156**
Repurchase, securities lending and similar agreements							
– Deposits by banks at amortized cost	**1,852**	**(89)**	**1,763**	**–**	**1,763**	**–**	**–**
– Customer accounts at amortized cost	**4,620**	**(1,780)**	**2,840**	**–**	**2,840**	**–**	**–**
Customer accounts excluding repos at amortized cost	**1,863**	**–**	**1,863**	**780**	**–**	**–**	**1,083**
	12,093	**(1,943)**	**10,150**	**1,148**	**4,702**	**61**	**4,239**
At 31 December 2016							
Derivatives[2] (note 11)	3,838	–	3,838	766	–	(240)	3,312
Repurchase, securities lending and similar agreements							
– Deposits by banks at amortized cost	1,048	(54)	994	–	994	–	–
– Customer accounts at amortized cost	5,232	(1,881)	3,351	–	3,351	–	–
Customer accounts excluding repos at amortized cost	1,961	–	1,961	–	–	–	1,961
	12,079	(1,935)	10,144	766	4,345	(240)	5,273

1 *Includes gross trading liabilities of $242m, of which, $74m have been set off in the balance sheet.*
2 *Includes derivative amounts that are both subject to and not subject to enforceable master netting agreements and similar agreements.*

32 Legal proceedings and regulatory matters

The bank is subject to a number of legal proceedings and regulatory matters arising in the normal course of our business. The bank does not expect the outcome of any of these proceedings, in aggregate, to have a material effect on its consolidated balance sheet or its consolidated income statement.

33 Events after the reporting period

There have been no other material events after the reporting period which would require disclosure or adjustment to the 31 December 2017 consolidated financial statements.

These accounts were approved by the Board of Directors on 15 February 2018 and authorized for issue.

HSBC Group International Network*

Services are provided by over 3,900 offices in 67 countries and territories:

Europe	*Offices*
Armenia	8
Austria	1
Belgium	1
Channel Islands	20
Czech Republic	2
France	331
Germany	18
Greece	16
Ireland	3
Isle of Man	2
Italy	3
Luxembourg	4
Malta	36
Monaco	2
Netherlands	1
Poland	5
Russia	2
Spain	2
Sweden	2
Switzerland	9
United Kingdom	643

Asia-Pacific	*Offices*
Australia	41
Bangladesh	10
Brunei Darussalam	2
China	261
Hong Kong Special Administrative Region	247
India	37
Indonesia	102
Japan	4
Korea, Republic of	3
Macau Special Administrative Region	6
Malaysia	74
Maldives	1
New Zealand	3
Philippines	11
Singapore	19
Sri Lanka	14
Taiwan	38
Thailand	1
Vietnam	16

Americas	*Offices*
Argentina	140
Bermuda	8
Brazil	1
British Virgin Islands	2
Canada	140
Cayman Islands	3
Chile	1
Colombia	1
Mexico	976
Peru	1
United States of America	244
Uruguay	10

Middle East and Africa	*Offices*
Algeria	3
Bahrain	4
Egypt	57
Israel	2
Kuwait	1
Lebanon	1
Mauritius	7
Morocco	1
Nigeria	1
Oman	52
Qatar	3
Saudi Arabia	102
South Africa	4
Turkey	84
United Arab Emirates	16

Associated companies are included in the network of offices.

HSBC Bank Canada Subsidiaries*

HSBC Global Asset Management (Canada) Limited
1 (800) 830-8888
www.hsbc.ca

HSBC Investment Funds (Canada) Inc.
1 (800) 830-8888
www.hsbc.ca/funds

HSBC Private Wealth Services (Canada) Inc.
1 (844) 756-7783
www.hsbc.ca

HSBC Securities (Canada) Inc.
1 (800) 760-1180
www.hsbc.ca

For more information, or to find the HSBC Bank Canada branch nearest you, call 1 (888) 310-4722 or visit our website at www.hsbc.ca

* *As of February 2018*

Executive Committee*

Sandra J. Stuart
Group General Manager, President and Chief Executive Officer
Vancouver

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Head of Strategy and Planning
Vancouver

Darren Boyer
Head of Remediation Management Office
Vancouver

Lisa Dalton
Chief of Staff, Office of the CEO
Vancouver

Jacques Fleurant
Chief Financial Officer
Vancouver

Kimberly Flood
Senior Vice President and Head of Communications
Toronto

Kim Hallwood
Head of Corporate Sustainability
Vancouver

Chris J. Hatton
Chief Operating Officer
Acting Chief Compliance Officer and Head of Regulatory Compliance
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Executive Vice President and Managing Director,
Head of Global Banking and Markets
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Chief Risk Officer
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Head of Human Resources
Vancouver

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Senior Vice President and Chief Auditor
Vancouver

Josée Turcotte
Senior Vice President,
Corporate Secretary and Head of Governance
Toronto

Annelle Wilkins
Senior Vice President and General Counsel
Vancouver

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Executive Vice President and Managing Director,
Head of Global Banking and Markets
HSBC Bank Canada

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Nancy E. Hughes Anthony
Corporate Director

Michael J. Korenberg
Corporate Director

Robert G. McFarlane
Chair of Audit and Risk Committee
Corporate Director

Sandra J. Stuart
Group General Manager,
President and Chief Executive Officer
HSBC Bank Canada

Helen P. K. Wong
Group General Manager,
Chief Executive Officer,
Greater China
The Hongkong and Shanghai Banking Corporation Limited

* *As of February 2018*

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2910 Virtual Way
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Designation of eligible dividends:
For the purposes of the *Income Tax Act* (Canada), and any similar provincial legislation, HSBC Bank Canada advises that all of its dividends paid to Canadian residents in 2006 and subsequent years are eligible dividends unless indicated otherwise.

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